

# **AUTOMOTIVE INDUSTRIES**

---

Published Semi-Monthly

## **INDEX**

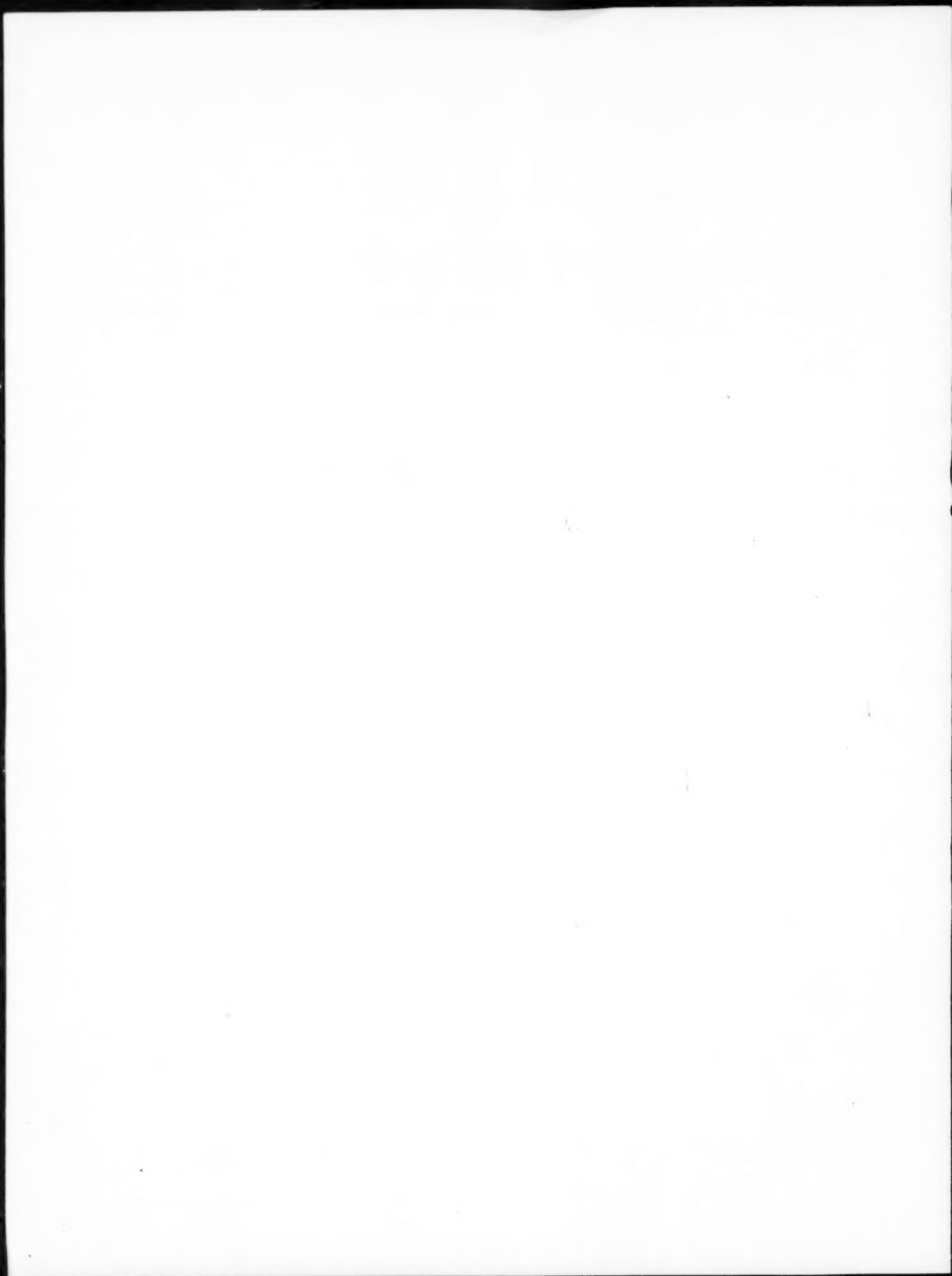
Volume 124

January 1 to June 15

1961

Articles by Subject	Page 3
Authors	Page 8
Companies	Page 9

CHILTON COMPANY, INC., PHILADELPHIA 39, PA.



-- A --

**ABSTRACTS**

Arc welding rear axle housings at Buick (6-1 pg 44)  
Chrysler Corp.'s slant six engine (2-15 pg 65)  
Corvair 95 truck and station wagon (3-15 pg 325)  
Foundry reliability (GM) (3-15 pg 336)  
Hydra-matic transmissions for 1961 (GM) (2-15 pg 66)  
Inspection in quality control (Chrysler) (6-15 pg 104)  
Transfer machine (5-1 pg 39)

**ABRASIVES**

Friction material production (Raybestos-Manhattan) (1-15 pg 72)

**AGRICULTURAL EQUIPMENT**

**GENERAL**

Farm Equipment Industry report (3-1 pg 63) (4-15 pg 82) (5-15 pg 102)

**DESIGN**

Ford tractor (6-15 pg 70)  
John Deere tractor design (5-15 pg 72)  
Leipzig Fair (5-1 pg 44)

**PRODUCTION**

Deere Waterloo works, Part I (4-1 pg 41)  
Deere Waterloo Works, Part IV (6-1 pg 52)  
Welding cluster gears at John Deere (1-15 pg 104)

**ENGINES**

Deere Waterloo Works, Part II (4-15 pg 64)  
Deere Waterloo Works, Part III (5-1 pg 52)

**AIRCRAFT & MISSILES**

**GENERAL**

Airbriefs (1-1 pg 56) (2-1 pg 56) (3-1 pg 50) (6-1 pg 55)

**DESIGN**

Steel structure of Bristol T-188 aircraft (4-15 pg 66)

Assembly --See Production

**ASSOCIATIONS & ORGANIZATIONS**

See also Government Agencies & Activities and Meetings  
Automotive drop forgings (DFA) (2-1 pg 33)  
Automotive plastics uses (SPI) (5-15 pg 61)  
Design engineering show preview (ASME) (5-15 pg 91)  
National motor boat show (NAE & BM) (2-15 pg 55)  
Recreational boating (NAE & BM) (OBICA) (1-15 pg 63)

-- B --

Boats --See Marine

**BRAKES**

See also New Developments  
Friction material production (Raybestos-Manhattan) (1-15 pg 72)

**BUSINESS CONDITIONS**

See also Financial News  
Experts predict upturn (Editorial) (4-1 pg 33)  
Formula for 1961 profits (3-15 pg 75)  
Machine tool builders report (2-1 pg 49)  
Machine tool builders report (5-1 pg 46)  
Metals (1-1 pg 55) (2-1 pg 62) (3-1 pg 48) (5-1 pg 54) (6-1 pg 80)

-- C --

**CASTING**

See also Production  
Chrysler Corp.'s slant six engine (abstract) (2-15 pg 65)  
High alloy castings in truck-installed gas turbine (Allison) (3-15 pg 344)  
Malleable iron use in passenger cars (1-15 pg 60)  
Zinc die castings for passenger cars (2-1 pg 47)

**CONSTRUCTION EQUIPMENT**

**GENERAL**

Construction Equipment Trends (1-15 pg 75) (3-1 pg 37) (5-15 pg 100)  
Rubber tires use in construction equipment (5-15 pg 69)

**DESIGN**

Twin Disc power-shift transmission (6-1 pg 48)

**PRODUCTION**

Boring tractor gear case at Allis-Chalmers (6-1 pg 47)

**ENGINES**

Army testing gas turbine tractor (GM) (CATERPILLAR TRACTOR) (2-15 pg 61)

**CONTRACTS**

Government Contracts (1-15 pg 122) (2-15 pg 128) (3-15 pg 335) (4-15 pg 116) (5-15 pg 140) (6-15 pg 133)  
New Twin Coach plant (AMC) (4-15 pg 72)

Conventions --See Meetings

**CORPORATIONS**

Ford Motor Co. management (2-1 pg 25)

-- D --

Design --See Aircraft, Buses, Engines, Marine, Passenger Cars, Tractors, Trucks

Diesel Engines --See Engines

-- E --

Earnings --See Financial News

**ELECTRONIC & ELECTRICAL EQUIPMENT (Automation)**

See also New Developments  
Automation News Report (1-1 pg 66) (2-1 pg 55) (3-1 pg 47)

Direct current for engine starting motors (3-15 pg 340)  
Electronics control quenching operation (Ford) (Minneapolis-Honeywell Regulator) (4-1 pg 69)  
Use of emission spectrometers at Buick (4-15 pg 68)

**ENGINES**

See also Agricultural Equip., Aircraft, Buses, Construction Equip., Marine, Passenger Cars, and Trucks

**DESIGN**

**Gas Turbine**

Army testing gas turbine tractor (GM) (Caterpillar Tractor) (2-15 pg 61)  
Automotive gas turbines, Part I (2-15 pg 58)  
Automotive gas turbines, Part II (3-1 pg 34)  
Automotive gas turbines, Part III (4-1 pg 39)  
Gas turbines for automotive use (International Nickel) (5-15 pg 82)  
High alloy castings in truck-installed gas turbine (Allison) (3-15 pg 344)  
National Motor boat show (2-15 pg 55)

**Reciprocating**

Buick, Olds aluminum engines, Part I (4-15 pg 60)  
Buick, Olds aluminum engines, Part II (5-1 pg 49)  
Chrysler Corp.'s slant six engine (abstract) (2-15 pg 65)  
Piston survey (6-15 pg 80)  
Self-propelled howitzer (Continental Motor) (American Machine & Foundry) (4-1 pg 53)  
Small gasoline engines (3-1 pg 29)

**PRODUCTION**

**Reciprocating**

Connecting rod production at Evinrude (6-1 pg 42)  
Deere Waterloo Works, Part III (5-1 pg 52)  
Four-cylinder engine at IHC (4-15 pg 58)  
Oldsmobile component production, Part II (1-1 pg 38)  
Push rod cover fabrication Rochester Products) (4-1 pg 44)

Exhibits --See Shows

-- F --

**FINANCIAL NEWS**

See also Business Conditions  
Construction Equipment Trends (1-15 pg 75) (3-1 pg 37) (5-15 pg 100)  
Farm Equipment Industry Report (3-1 pg 63) (4-15 pg 82) (5-15 pg 102)

## FOREIGN BUSINESS ACTIVITIES

Assembling Renault steering gears (3-1 pg 38)  
Geneva Show (5-1 pg 42)  
Leipzig Fair (5-1 pg 44)  
Steel structure of Bristol T-188 aircraft (4-15 pg 66)  
Tooling at Holland's DAF factory (2-15 pg 62)

## FORGINGS

See also Production  
Automotive drop forgings (2-1 pg 33)

## FORMING

See also Production  
Moving bolster press line (GM) (3-1 pg 42)

## FUELS

Gas turbines for automotive use (International Nickel) (5-15 pg 82)

-- G --

## GEARS

See also Agricultural Equip., Aircraft, Buses, Constructions, Developments, Passenger Cars, Trucks  
Assembling Renault steering gears (3-1 pg 38)  
Boring tractor gear case at Allis-Chalmers (6-1 pg 47)

## GOVERNMENT AGENCIES & ACTIVITIES

See also Associations & Organizations  
Government Contracts (1-15 pg 122) (2-15 pg 128) (3-15 pg 335) (4-15 pg 116) (5-15 pg 140) (6-15 pg 133)

-- H --

## HYDRAULICS

Slipper-type pump (Thompson Ramo Wooldridge) (2-15 pg 70)

-- I --

Inspection --See Production

-- L --

Labor Relations --See Industrial Relations and Employment

-- M --

## MACHINE TOOLS

See also New Developments and Production

### GENERAL

Aluminum transmission case cover production (Detroit Transmission) (1-15 pg 68)  
Automation News Report (1-1 pg 66) (2-1 pg 55) (3-1 pg 47)  
Boring tractor gear case at Allis-Chalmers (6-1 pg 47)  
Cold extrusion at Saginaw (6-1 (4-15 pg 64)  
Deere Waterloo Works, Part III (5-1 pg 52)  
Machine tool builders report (2-1 pg 49)  
Machine tool builders report (5-1 pg 46)  
News of the Machinery Industries (1-1 pg 60) (1-15 pg 88) (2-15 pg 78) (3-1 pg 52) (3-15 pg 286) (4-1 pg 54) (4-15 pg 80) (5-1 pg 59) (5-15 pg 85) (6-1 pg 56) (6-16 pg 87)  
Numerical control at Detroit Diesel (2-15 pg 68)  
Transfer machine (abstract) (5-1 pg 39)  
Westinghouse machine tool conference (6-1 pg 35)

Machining --See Production

## MARINE

### GENERAL

Recreational boating (1-15 pg 63)

### ENGINES

Connecting rod production at Evinrude (6-1 pg 42)  
Marine engines, Part I (1-15 pg 66)  
Marine engines, Part II (2-1 pg 44)  
National motor boat show (2-15 pg 55)

## MARKETING

See also Packaging, Production, and New Developments  
Aluminum use in passenger cars (1-15 pg 55)  
Automotive drop forgings (2-1 pg 33)

Machine tool builders report (2-1 pg 49)

Machine tool builders report (5-1 pg 46)

Plastics in the automotive industries, Part I...nylon (4-1 pg 47)

Recreational boating (1-15 pg 63)

Small gasoline engines (3-1 pg 29)

Zinc die castings for passenger cars (2-1 pg 47)

## MATERIALS HANDLING

Assembling Renault steering gears (3-1 pg 38)

Automation News Report (1-1 pg 66) (2-1 pg 55) (3-1 pg 47)

Deere Waterloo Works, Part I (4-1 pg 41)

Deere Waterloo Works, Part II (4-1 pg 64)

Deere Waterloo Works, Part III (5-1 pg 52)

Deere Waterloo Works, Part IV (6-1 pg 52)

Four-cylinder engine at IHC (4-15 pg 58)

IHC new assembly plant (4-1 pg 35)

Moving bolster press line (GM) (3-1 pg 42)

Push rod cover fabrication (Rochester Products) (4-1 pg 44)

## MEETINGS

See also Associations & Organizations and Shows  
Architects of the automotive Future, Part I  
Design engineering show preview (5-15 pg 91)  
Westinghouse machine tool conference (6-1 pg 35)

## METALLURGY

See also Metals  
Die quenching machine at A. O. Smith (6-1 pg 66)  
Spheroidizing of heading stock (Chicago Screw) (5-15 pg 120)  
Use of emission spectrometers at Buick (4-15 pg 68)

## METALS

See also Metallurgy

### GENERAL

Metals (1-1 pg 55) (2-1 pg

62) (3-1 pg 48) (5-1 pg 54) (6-1 pg 80)

## ALUMINUM

Aluminum Transmission case cover production (Detroit Transmission) (1-15 pg 68)  
Aluminum use in passenger cars (1-15 pg 55)  
Buick, Olds aluminum engines, Part I (4-14 pg 60)  
Buick, Olds aluminum engines, Part II (5-1 pg 49)  
Chrysler Corp.'s slant six engine (abstract) (2-15 pg 65)  
Piston survey (6-15 pg 80)

## IRON

Malleable iron use in passenger cars (1-15 pg 60)  
Shapes, forms in steel (6-15 pg 68)  
Stainless steel use in cars (2-15 pg 72)  
Steel structure of Bristol T-188 aircraft (4-15 pg 65)

## ZINC

Zinc die castings for passenger cars (2-1 pg 47)

## MILITARY EQUIPMENT & ACTIVITIES

High alloy castings in truck-installed gas turbine (Allison) (3-15 pg 344)  
See also Government Agencies & Activities and Production  
Army testing gas turbine tractor (GM) (Caterpillar Tractor) (2-15 pg 61)  
Clues toward more mobility (6-1 pg 38)  
Government Contracts (1-15 pg 122) (2-15 pg 128) (3-15 pg 335) (4-15 pg 116) (4-15 pg 116) (5-15 pg 140) (6-15 pg 133)  
New Twin Coach plant (AMC) (4-15 pg 72)  
Self-propelled howitzer (Continental Motor) (American Machine & Foundry) (4-1 pg 53)

-- N --

## NEW DEVELOPMENTS

New Plant & Production Equipment

- Alloy, brazing, Microbras S (Wall Colmony) (3-15 pg 303)
- Annealing unit, auto brackets (Induction Heating) (5-1 pg 63)
- Arc light, optical inspection (Ex-Cell-O) (6-15 pg 51)
- Automatic feed, orienting machine (Bosworth Mfg.) (4-15 pg 85)
- Balls, precision (Industrial Tectonics) (3-15 pg 308)
- Barrel, tumbling, Vibrotone (Minnesota Mining & Mfg.) (5-1 pg 63)
- Boring head, adjustable (Lido Tools) (3-1 pg 58)
- Boring machine, continuous, transmission parts (Ex-Cell-O) (2-1 pg 64)
- Boring machine, four-way, aluminum crankcase (Ex-Cell-O) (5-15 pg 90)
- Boring machine, rear axle housings (Heald Machine) (2-15 pg 82)
- Boring machine, two-spindle (Ex-Cell-O) (5-15 pg 89)
- Bushings, drill, holder (Mueller Industries) (6-15 pg 90)
- Cabinet, maintenance (Bay Products) (2-15 pg 80)
- Cameras, radiography iridium (Radionics) (1-15 pg 84)
- Checking system, tooth-spacing (Michigan Tool) (6-1 pg 59)
- Clutches, hydraulic (Borg-Warner) (3-15 pg 308)
- Comparator, compact, electronic, Model 136B-2 (Federal Products) (5-15 pg 88)
- Comparator, optical, 300 (Micro VU) (1-15 pg 81)
- Compressors, air (Davey Compressor) (4-15 pg 84)
- Copying machine, Copyflex, Model 61 (Charles Bruning) (5-1 pg 63)
- Cylinder, air, Series K (Ortman-Miller Machine) (5-1 pg 63)
- Cylinders, hydraulic (Milwaukee Cylinder) (4-15 pg 84)
- Deburring unit, 2-spindle (Macha Finish) (4-1 pg 62)
- Die casting machine, Model 1502 (American Die Casting Machinery) (3-15 pg 296)
- Dresser, optical-wheel, Optidress (Parker-Hartford) (6-1 pg 59)
- Drill, point thinner (Farrel-Birmingham) (6-1 pg 58)
- Drill, turret, automatic (Burgmaster) (1-15 pg 81)
- Drill press, hollow spindle, variable speed (Buffalo Forge) (5-15 pg 89)
- Drilling, tapping machine, V-12 aluminum engine crankcases (Foote-Burt) (3-15 pg 303)
- Drilling machine, slip-spindle (F. Jos. Lamb) (6-15 pg 90)
- Drive, variable-speed (Cleveland Worm & Gear) (3-15 pg 308)
- Drive, variable-speed (Lima Electric Motor) (1-15 pg 81)
- Drive units (Eaton Mfg.) (6-1 pg 62)
- Drives, angle, Model 9056HFT (F. W. Stewart) (6-1 pg 58)
- Feed device, air, punch presses (Special Engineering Service) (4-1 pg 58)
- Feed, roll, precision, Series 9PRF (Benchmark Mfg.) (5-1 pg 69)
- Feed unit, press (Precision Welder & Flexopress) (1-1 pg 64)
- Feeder, press, single pieces (Special Machinery) (3-1 pg 60)
- Feeder units, parts, Transfer Robot (US Industries) (5-15 pg 89)
- Feeding machines, tubing, bar stock (Magnaflux) (4-15 pg 89)
- Filter, liquid gas (Purolator Products) (3-1 pg 58)
- Finishing machine, vibratory (Panborn) (2-1 pg 64)
- Finishing unit, barrel, Electra-tilt (Baird Machine) (6-16 pg 90)
- Frames, take-up, bearing (Link-belt) (3-15 pg 303)
- Furnace, atmosphere, electric (Lindberg Engineering) (3-15 pg 298)
- Gage, control, air-electric (Federal Products) (5-15 pg 90)
- Gage, snap-plug, internal (Southern Gage) (2-15 pg 81)
- Gages nuclear, Micrometer (Radionics) (3-1 pg 60)
- Gearmotors, right-angle (Reliance Electric & Engineering) (6-1 pg 59)
- Grinder, 7-inch, safety features (Rockwell Mfg.) (3-15 pg 308)
- Grinder, axle housing (Acme Mfg.) (1-15 pg 84)
- Grinder, internal, Model 090A (Heald Machine) (6-1 pg 58)
- Grinder, surface, 108 in. capacity (Blanchard Machine) (3-15 pg 304)
- Grinders, abrasive belt (Grinding & Polishing Machinery) (3-15 pg 298)
- Grinders, air, Series 505 & 532 (Albertson) (4-1 pg 62)
- Hardening machines, bearing races, Ther-monic, Model 500 (Induction Heating) (3-1 pg 59)
- Heater, induction, hardening, automatic (Induction Heating) (2-15 pg 82)
- Holder, heli-weld, Airco H16-A (Air Reduction Sales) (3-1 pg 58)
- Hook, lift, automatic, Auto-Bi-Hook (Bi-Rail) (2-15 pg 80)
- Indexing machine, automatic, cast iron cylinders (Greenlee Bros.) (3-15 pg 298)
- Inline machine, cast aluminum cylinder blocks (F. Jos. Lamb) (2-15 pg 80)
- Inspecting device, small bore (Welch Allyn) (3-15 pg 298)
- Lapping machine, 12-inch (Speedlap) (6-15 pg 90)
- Lapping machine, pneumatic lifts (Crane Packing) (3-1 pg 59)
- Lathe, automobile axle shafts, Model AR (Seneca Falls Machine) (4-15 pg 85)
- Lathe, Blue Chip Clearing Model 6040 (U.S. Industries) (4-1 pg 62)
- Lathe, multiple-spindle, Type M Multi-Au-Matic (Bullard) (6-1 pg 59)
- Lathe, one-motion control (Rivett Lathe & Grinder) (1-15 pg 84)
- Lathe, threading, automatic, tracer, Cri-Dan B (Gisholt Machine) (4-1 pg 59)
- Lathe, tracer, HB-575 (Caze-neuve Lathes) (3-15 pg 298)
- Lathes, engine, tape control, Models 2010, 2413, 2514, & 3019 (American Tool Works) (4-15 pg 85)
- Loader, automatic (National Broach & Machine) (1-15 pg 84)
- Loader, automatic, gear shaving machine (National Broach & Machine) (6-15 pg 91)
- Machine, 4-way, tunnel type column (F. Jos. Lamb) (6-1 pg 62)
- Machine, multi-operation, speedometer frame die castings (Kingsbury Machine Tool) (4-15 pg 84)
- (Hughes Aircraft) (1-15 pg 82)
- Marker, clearance truck (K-D Lamp) (1-1 pg 71)
- Metal-remover, electrical discharge, Lectra-Form (Ex-Cell-o) (6-1 pg 62)
- Micrometer, light wave, Model LWM-60 (Van Keuren) (6-1 pg 58)
- Milling machine, spindle (Standard Electrical Tool) (1-15 pg 83)
- Milling machine, vertical, Hydro-Tel (Cincinnati Milling Machine) (4-1 pg 59)
- Motors, orbit, hydraulic (Char-Lynn) (2-15 pg 83)
- Nut, self-locking (Standard Pressed Steel) (2-15 pg 83)
- Nut and washer, preassembled, Nups (Phila. Steel & Wire) (2-15 pg 81)
- Nut runner, torque control clutch (Buckeye Tool) (5-15 pg 89)
- Nut runner, torque control clutch (Buckeye Tool) (5-15 pg 89)
- Oscillograph, recording system, Model 297 (Sanborn) (2-15 pg 81)
- Packings, cup, Rulon (Dixon) (4-1 pg 59)
- Positioning, programming system (Sanders Associates) (3-15 pg 303)
- Power units, pump, double (Hannifin) (2-1 pg 64)
- Presetting machine, tool (De-Punch, metal, Model MP-336 (Manco Mfg.) (6-1 pg 62)
- Presses, hydraulic (W.A. Whitney MFG.) (3-15 pg 296)
- Relay, time delay (E-T-A Products) (5-15 pg 90)
- Router, contour (Crossley Machine) (1-15 pg 81)
- Safety device, press, Saf-T-Block (Duff-Norton) (1-1 pg 64)
- Saw, metal cutting, Model L-9 (W. F. Wells) (5-1 pg 62)
- Scale attachment, vernier, Evertrue (Edgcomb Engineering & Engraving) (3-1 pg 60)
- Sharpener, punch and die (Punch Products) (3-15 pg 298)
- Shaver, gear, cutter head (National Broach & Machine) (3-1 pg 58)
- Simulator, vacuum, Series VA (Prencio Mfg.) (3-15 pg 304)
- Soldering machine, automatic, sealing radiators (Expert Welding Machine) (6-16 pg 91)
- Spring maker (Baird Machine) (1-1 pg 64)
- Switch, limit, lamp (Minneapolis)



- olis-Honeywell Regulator) (4-15 pg 89)
  - Switches, interlock (Minneapolis-Honeywell Regulator) (6-1 pg 58)
  - Table, indexing (Michigan Tool) (3-15 pg 298)
  - Tachometer, Model T402 (Auto-Test) (3-15 pg 304)
  - Tapper, pneumatic, hand operated, Model 400-T (Airtool Mfg.) (5-15 pg 90)
  - Testing equipment, automotive components (Bendix) (3-15 pg 296)
  - Testing machine, Electmatic (Tinius Olson Testing Machine) (5-15 pg 88)
  - Tool, cut-off, adjustable (Portage Double Quick) (3-15 pg 308)
  - Tracer, electronic (Air Reduction Sales) (3-15 pg 296)
  - Transducer, torque, testing (Lebow Associates) (5-1 pg 69)
  - Transfer machine, 17-station, 64-spindle (Foote-Burt) (4-1 pg 59)
  - Transfer machine, 20-station, cranks shafts (Snyder) (3-1 pg 60)
  - Transfer machine, chucking-type (Cross) (2-15 pg 81)
  - Transfer machine, pallet-type (Cross) (4-15 pg 89)
  - Transmission, heavy-duty Model 18700 EC (Western Mfg.) (4-1 pg 58)
  - Transmission, hydraulic, machine tools (Roberts Electric) (1-1 pg 64)
  - Truck, lift, 4-wheel drive (Frank G. Haugh) (1-1 pg 64)
  - Truck, lift, gas powered, Stand-up (Clark Equipment) (2-1 pg 64)
  - Valve assembly, dual (Minneapolis-Honeywell Regulator) (4-1 pg 59)
  - Valves, directional (Vickers) (5-1 pg 63)
  - Welder, arc, ac-dc, Model TR (Westinghouse Electric) (4-15 pg 84)
  - Welder, arc, industrial, MCM-AC Bumblebee S (Air Reduction sales) (4-1 pg 58)
  - Welder, dial-type holder (Federal Machine & Welder) (1-15 pg 83)
  - Welder, multi-type (Air Reduction Sales) (3-15 pg 304)
  - Welding, trimming machines, automotive ring gears (Swift Ohio) (6-15 pg 90)
  - Welding package, arc (Air Reduction Sales) (6-1 pg 62)
  - Welding process, mild steel (Air Reduction Sales) (2-15 pg 80)
- NEW PRODUCTS**
- Automotive & Aviation**
  - Adhesive, epoxy paste, Epon 901 (Shell Chemical) (3-15 pg 310)
  - Adhesive, neoprene, D-239 (Armstrong Cork) (5-15 pg 97)
  - Alloy, aluminum, 5252 (Kaiser Aluminum & Chemical) (5-15 pg 154)
  - Alternator, 40-ampere, Series 6000 (Leece-Neville) (2-15 pg 84)
  - Alternator, heavy duty unit (Syncro) (6-15 pg 94)
  - Anti-smog device, Mark IX (Chromalloy) (1-15 pg 85)
  - Arm, steering, one piece (Union Forging) (3-1 pg 62)
  - Axle, trailer, light-weight (Shuler Axle) (2-15 pg 84)
  - Bearing, non-friction, Flexural Pivot (Bendix) (5-15 pg 97)
  - Block, aluminum, engine, Dodge Lancer (Dodge) (3-1 pg 62)
  - Brake, commercial vehicles (Rockwell-Standard) (2-1 pg 66)
  - Brake, Diesel engines (Jacobs Mfg.) (3-1 pg 62)
  - Brake, heavy-duty (Rockwell-Standard) (4-15 pg 91)
  - Brake, power, Vacuum, Uni-Brake (Belvac) (4-1 pg 63)
  - Bushings, ball, Inst-258 & Inst-396 (Thomson Industries) (1-1 pg 71)
  - Carbide, cemented, steel-cutting (Allegheny Ludlum Steel) (5-15 pg 97)
  - Carburetor, natural gas (Imperial Machine Products) (4-1 pg 63)
  - Clutches, high-speed, spring loader (Borg-Warner) (5-1 pg 66)
  - Coating, corrosion preventative, Permaspray (Leonetti Enterprises) (5-1 pg 66)
  - Coating, vinyl, Strip-Guard (B.F. Goodrich Chemical) (3-15 pg 310)
  - Controller, electric, trailer brakes (Kelsey-Hayes) (5-1 pg 66)
  - Converters, torque, off-highway equipment (Borg-Warner) (5-15 pg 97)
  - Coupling material, flexible inserts, Elastine (Shurclose Seal) (5-15 pg 97)
  - Dashboard instrument cluster, plastic (U.S. Rubber) (2-1 pg 66)
  - Diesel-electric units, material handling trucks (Ready Power) (1-15 pg 86)
  - Drive, fan, automatic, heavy-duty (International Harvester) (1-15 pg 86)
  - Drum, brake, heavy-duty (Motor Wheel) (4-1 pg 63)
  - Electric car, compact, industrial use, Delwick (Namisco) (5-15 pg 98)
  - Enamels, auto-body (Monsanto Chemical) (3-15 pg 310)
  - Engine, Diesel, industrial (Allis-Chalmers Mfg.) (1-1 pg 71)
  - Fastener, spring (George K. Garrett) (2-15 pg 85)
  - Filter and gasoline separator (Filters) (2-15 pg 85)
  - Filtering element, oil (Caterpillar Tractor) (1-15 pg 86)
  - Filters, air (Stelling & Helling) (6-15 pg 94)
  - Float, carburetor (Holley Carburetor) (3-1 pg 62)
  - Fume control, internal combustion engines (Morris Deoderizers) (6-15 pg 94)
  - Gear box, 90 deg (Stow Mfg.) (6-1 pg 67)
  - Grill, truck, heavy-duty (E. H. Titchener) (4-1 pg 63)
  - Heater, school bus, thermostatically-controlled (Stewart-Warner) (2-1 pg 66)
  - Ignition, breakerless (Delco-Remy) (2-1 pg 66)
  - Insulating foam, urethane, Lockfoam H-602 (Nopco Chemical) (5-15 pg 97)
  - Luster preserving (Reynolds Metals) (3-15 pg 310)
  - Motorpump, hydraulic, aircraft (Vickers) (4-1 pg 63)
  - Muffler, coated (Maremont Muffler) (2-15 pg 84)
  - Muffler, stainless steel, Thunderbird, MF-1 (Allegheny Ludlum Steel) (2-15 pg 85)
  - Nut, two-way lock (MacLean-Fogg Lock Nut) (5-1 pg 66)
  - Paint, aluminum, Heat-Rem H-120-A (Speco) (2-15 pg 84)
  - Panels, fiber-glass, truck, trailer liners (Molded Fiber Glass Body) (5-15 pg 98)
  - Phenolic, medium-impact, RX 522 (Rogers) (5-15 pg 97)
  - Pistons, aluminum (Alcoa) (5-15 pg 98)
  - Power pack, Buick aluminum V-8 engine (Buick) (2-15 pg 85)
  - Preheater, engine, gas or Diesel units (Stewart Warner) (4-15 pg 91)
  - Preheaters, engine, thermostatic, Zero Start (Phillips Mft.) (3-1 pg 62)
  - Pump, hydraulic, airborne, AP-2V (American Brake Show) (6-1 pg 67)
  - Pump, injection, fuel (Robert Bosch) (1-1 pg 71)
  - Retarder, hydraulic, Brake-Mate (Borg-Warner) (2-15 pg 85)
  - Rivet, large flange, aluminum (United Shoe Machinery) (5-15 pg 97)
  - Rubber, slippery (Quantum) (5-15 pg 154)
  - Self starters, gasoline engines, 12-hp (Tiffany) (6-15 pg 94)
  - Seal, auto-body, rubber (Geauga Industries) (1-15 pg 86)
  - Seal, main bearing (Brummer Seal) (3-1 pg 62)
  - Seal material, static (Armour Research Foundation) (3-15 pg 310)
  - Soundproofing foam (Foam Products Mfg.) (5-15 pg 154)
  - Steel, stainless, free-machining, Uniloy 303MA (Universal-Cyclops Steel) (5-1 pg 66)
  - Steel plate, free machining (U. S. Steel) (6-15 pg 94)
  - Suspension, axle (Eaton Mfg.) (5-15 pg 98)
  - Suspension, tandem, trucks (Rockwell Standard) (6-1 pg 67)
  - Terminal assemblies (Bendix) (4-15 pg 91)
  - Tire, all-butyl (U.S. Rubber) (1-15 pg 85)
  - Tire, nylon-rayon (Seiberling Rubber) (3-15 pg 310)
  - Tire, premium, passenger car, Ultra M 200 (Lee Rubber & Tire) (5-15 pg 98)
  - Tire, skid resisting (Firestone Tire & Rubber) (2-15 pg 84)
  - Tire, translucent (Goodyear Tire & Rubber) (1-15 pg 85)
  - Tire, two-ply, compact cars (B.F. Goodrich Tire) (3-15 pg 310)
  - Tire cord, rayon (Industrial Rayon) (2-15 pg 84)
  - Tires, truck, synthetic (U.S. Rubber) (2-1 pg 66)
  - Transmission, auxiliary, Spicer Model 7041 (Dana) (6-1 pg 67)
  - Transmission, power shift, off-the-road equipment (Clark Equipment) (1-15 pg 85)

Transmissions, lightweight, Diesel engines (Eaton Mfg.) (6-15 pg 94)  
 Turbocharger, lightweight, Model 317 (Thompson Ramo Wooldridge) (4-15 pg 91)  
 Valve, carburetor (Holley Carburetor) (1-15 pg 86)  
 Valve, nylon tire, Glo-Cap (Allied Chemical) (1-15 pg 85)  
 Wheel, press, polyurethane (Pellon) (6-15 pg 94)  
 Wheel, rust-proof, aircraft (Goodyear Tire & Rubber) (4-15 pg 91)  
 Wiper, windshield, heavy-duty (American Bosch Arma) (1-1 pg 71)

-- O --

**Oils & Oiling** --See Lubrication & Lubricants

**Organizations** -- See Associations and Meetings

-- P --

## PASSENGER CARS

### DESIGN

#### General

Architects of the automotive future, Part I (6-16 pg 59)  
 Ford styling (1-1 pg 33)  
 Geneva Show (5-1 pg 42)  
 Leipzig Fair (5-1 pg 44)  
 Shapes, forms in steel (6-15 pg 68)  
 Stainless steel use in cars (2-15 pg 72)  
 Tomorrow's transportation display (McLouth Steel) (2-1 pg 41)

#### Chassis

Hydra-matic transmissions for 1961 (GM) (abstract) (2-15 pg 66)

#### Components

Aluminum use in passenger cars (1-15 pg 55)  
 Direct current for engine start-motors (3-15 pg 340)  
 Malleable iron use in passenger cars (1-15 pg 60)  
 Plastics in the automotive industries, Part I...nylon (4-1 pg 47)  
 Slipper-type pump (Thompson Ramo Wooldridge) (2-15 pg 70)

### Engines

Automotive gas turbines, Part II, (3-1 pg 34)  
 Automotive gas turbines, Part III, (4-1 pg 39)  
 Buick, Olds aluminum engines, Part I (4-15 pg 60)  
 Buick, Olds aluminum engines, Part II (5-1 pg 49)  
 Gas turbines for automotive use (International Nickel) (5-15 pg 82)  
 Powerplants for passenger cars (Ethyl) (4-15 pg 55)

### PRODUCTION

#### General

Tooling at Holland's DAF factory (2-15 pg 62)

#### Chassis

Arc welding rear axle housings at Buick (Abstract) (6-1 pg 44)

#### Components

Assembling Renault steering gears (3-1 pg 38)  
 Blower fans balanced at Chrysler Airtemp (1-15 pg 95)  
 Door lock testing at Ford (6-15 pg 79)  
 Oldsmobile component production, Part II (1-1 pg 38)  
 Plastic foam gasket use in Chrysler (1-15 pg 62)  
 Push rod cover fabrication (Rochester Products) (4-1 pg 44)  
 Zinc die castings for passenger cars (2-1 pg 47)

### Engines

Four-cylinder engine at IHC (4-15 pg 58)

### STATISTICS

#### Specifications

Passenger car specifications for 1961 (1-1 pg 42)

## PLANTS FACILITIES

### NEW, CHANGES, OPERATIONS

Automation News Report (1-1 pg 66) (2-1 pg 55) (3-1 pg 47)  
 Connecting rod production at Evinrude (6-1 pg 42)

Deere Waterloo Works, Part I (4-1 pg 41)

Deere Waterloo Works, Part II (4-15 pg 64)

IHC new assembly plant (4-1 pg 35)

New Twin Coach plant (AMC) (4-15 pg 72)

### FOREIGN

Assembling Renault steering gears (3-1 pg 38)

Tooling at Holland's DAF factory (2-15 pg 62)

### PLASTICS

See also New Developments  
 Automotive plastics uses (5-15 pg 61)

Celanese introduces acetal plastic (4-15 pg 74)

Plastic foam gasket use in Chrysler (1-15 pg 62)

Plastics in the automotive industries, Part I...nylon (4-1 pg 47)

### PRICES

Machine tool builders report (2-1 pg 49)

Machine tool builders report (5-1 pg 46)

### PRODUCTION

See also Agricultural Equip., Aircraft, Buses, Construction Equip., Engines, Passenger Cars, and Trucks

### GENERAL

Buying "quality" is now foremost (Editorial) (3-1 pg 27)

### CASTING

Oldsmobile component production, Part II (1-1 pg 38)

### FORMING

Cold extrusion at Saginaw (6-1 pg 48)  
 Moving bolster press line (GM) (3-1 pg 42)

### HEAT TREATING

Die quenching machine at A. O. Smith (6-1 pg 66)  
 Electronics control quenching operation (Ford) (Minneapolis-Honeywell Regulator)

(4-1 pg 69)  
 Spheroidizing of heading stock (Chicago Screw) (5-15 pg 120)

### MACHINING

Aluminum transmission case cover production (Detroit Transmission) (1-15 pg 68)  
 Assembling Renault steering gears (3-1 pg 38)

Boring tractor gear case at Allis-Chalmers (6-1 pg 47)

Connecting rod production at Evinrude (6-1 pg 42)

Deere Waterloo Works, Part II (4-15 pg 64)

Deere Waterloo Works, Part III (5-1 pg 52)

Deere Waterloo Works, Part IV (6-1 pg 52)

Four-cylinder engine at IHC (4-15 pg 58)

Machining large differential carriers at IHC (4-15 pg 70)

Numerical control at Detroit Diesel (2-15 pg 68)

Push rod cover fabrication (Rochester Products) (4-1 pg 44)

Transfer machine (abstract) (5-1 pg 39)

### PLATING

Zinc die castings for passenger cars (2-1 pg 47)

### QUALITY CONTROL

Blower fans balanced at Chrysler Airtemp (1-15 pg 95)

Foundry reliability (GM) (abstract) (3-15 pg 336)

Friction material production (Raybestos-Manhattan) (1-15 pg 72)

Inspection in quality control (Chrysler) (abstract) (6-15 pg 104)

Quality cost system at Chrysler (3-15 pg 316)

Use of emission spectrometers at Buick (4-15 pg 68)

### WELDING

Arc welding rear axle housings at Buick (abstract) (6-1 pg 44)

Welding cluster gears at John Deere (1-15 pg 104)

-- Q --

**Quality Control** --See Production

**R**

**RACING (Auto)**

Indianapolis 500 preview (5-1 pg 35)  
Registrations--See Aircraft, Passenger Cars, Trucks

**RUBBER**

Rubber tires use in construction equipment (5-15 pg 69)

**S**

Sales --See Agricultural Equip., Aircraft, Buses, Construction Equip., Hand Tools, Machine Tools, Marine, Passenger Cars, and Trucks

**SHOWS**

See also Meetings

Design engineering show preview (5-15 pg 91)  
Geneva Show (5-1 pg 42)  
Leipzig Fair (5-1 pg 44)  
Marine engines, Part I (1-15 pg 66)  
National motor boat show (2-15 pg 55)  
Tomorrow's transportation display (McLouth Steel) (2-1 pg 41)  
Specifications -- See Agricultural Equip., Aircraft, Buses, Construction Equip., Engines, Marine, Passenger Cars, and Trucks  
Sport Cars -- See Passenger cars

**STEERING SYSTEMS & COMPONENTS**

See also Agricultural Equip., Buses, Construction Equip., Passenger Cars and Trucks  
Assembling Renault steering gears (3-1 pg 38)  
Cold extrusion at Saginaw (6-1 pg 48)  
Slipper-type pump (Thompson Ramo Wooldridge) (2-15 pg 70)

Subcontracts --See Contracts

**T**

Tanks --See Military Equipment & Activities

**TESTING**

See also New Developments  
Army testing gas turbine tractor (GM) (Caterpillar Tractor) (2-15 pg 61)  
Blower fans balanced at Chrysler Airtemp (1-15 pg 95)  
Clues toward more mobility (6-1 pg 38)  
Corvair 95 truck and station wagon (abstract) (3-15 pg 325)  
Door lock testing at Ford (6-15 pg 79)  
Friction material production (Raybestos-Manhattan) (1-15 pg 72)  
Use of emission spectrometers at Buick (4-15 pg 68)

**TIRES**

See also New Developments  
Rubber tires use in construction equipment (5-15 pg 69)

**TRANSMISSIONS**

See also Agricultural Equip., Buses, Construction Equip., Marine, Passenger Cars, and Trucks

**DESIGN**

**Automatic**

Hydra-matic transmissions for 1961 (GM) (abstract) (2-15 pg 66)  
Hydrostatic transmission for mobile equipment (New York Air Brake) (3-1 pg 33)

**Manual**

Twin Disc power-shift transmission (6-1 pg 48)

**PRODUCTION**

**Automatic**

Aluminum transmission case cover production (Detroit Transmission) (1-15 pg 68)  
Tooling at Holland's DAF factory (2-15 pg 62)

**Manual**

Welding cluster gears at John Deere (1-15 pg 104)

**TRUCKS**

**DESIGN**

**General**

Corvair 95 truck and station wagon (abstract) (3-15 pg 325)

**PRODUCTION**

**General**

IHC new assembly plant (4-1 pg 35)

**Chassis**

Die quenching machine at A. O. Smith (6-1 pg 66)

**U**

Unions --See Associations & Organizations

**W**

Wages --See Employment

**WELDING**

See also Production  
Welding cluster gears at John Deere (1-15 pg 104)

**AUTHORS**

**A**

ALLGOOD, DWIGHT M.  
Automotive drop forgings (2-1 pg 33)

**B**

BARCLAY, HARTLEY W.  
America's mobility gas (Editorial) (2-15 pg 53)  
Buying "quality" is now foremost (Editorial) (3-1 pg 27)  
Cold, hard look at 1961 (Editorial) (1-15 pg 53)  
Counting up the costs (Editorial) (4-15 pg 53)  
Experts predict upturn (Editorial) (4-1 pg 33)  
Facing the second half (Editorial) (6-1 pg 33)  
Formula for 1961 profits (Editorial) (3-15 pg 75)  
How to build a boom (Editorial) (5-15 pg 59)  
Meeting the challenge of modern mobility (Editorial) (6-16 pg 57)  
Positive program for American industry (Editorial) (5-1 pg 33)  
Strong outlook for 1961 (Editorial) (1-1 pg 31)

You too can get \$8 for \$1 (2-1 pg 31)  
BAUER, C. G.  
Inspection in Quality control (Chrysler) (abstract) (6-15 pg 104)  
BOERICKE, WM. F.  
Metals (1-1 pg 55) (2-1 pg 62) (3-1 pg 48) (5-1 pg 54) (6-1 pg 80)  
BORUTA, ROMAN E.  
Quality cost system at Chrysler (3-15 pg 316)

**C**

CLARK, H. M.  
Slipper-type pump (Thompson Ramo Wooldridge) (2-15 pg 70)  
CLEVELAND, R. L.  
Friction material production (Raybestos-Manhattan) (1-15 pg 72)

**D**

DRURY, C. E.  
Foundry reliability (GM) (abstract) (3-15 pg 336)

**E**

ERIKSEN, H. E.  
Chrysler Corp.'s slant six engine (abstract) (2-15 pg 65)

**G**

GAINER, K. A.  
Friction material production (Raybestos-Manhattan) (1-15 pg 72)  
GESCHELIN, JOSEPH  
Aluminum transmission case cover production (Detroit Transmission) (1-15 pg 68)  
Cold extrusion at Saginaw (6-1 pg 48)  
Ford Motor Co. management (2-1 pg 25)  
Ford tractor (6-15 pg 70)  
Four-cylinder engine at IHC (4-15 pg 58)  
IHC new assembly plant (4-1 pg 35)  
Machining large differential carriers at IHC (4-15 pg 70)  
Moving bolster press line (GM) (3-1 pg 42)  
Numerical control at Detroit Diesel (2-15 pg 68)  
Observations (2-1 pg 9) (2-15 pg 76) (3-15 pg 323)



- (5-15 pg 156)  
Oldsmobile component production, Part II (1-1 pg 38)  
Piston survey (6-15 pg 80)  
Transfer machine (abstract) (5-1 pg 39)  
Use of emission spectrometers at Buick (4-15 pg 68)  
GOERTZ, ALBRECHT GRAF  
Geneva Show (5-1 pg 42)
- H  
HERNDON, W. B.  
Hydra-matic transmissions for 1961 (GM) (abstract) (2-15 pg 66)
- K  
KAY, R. RAYMOND  
Airbriefs (1-1 pg 56) (2-1 pg 52) (3-1 pg 50) (6-1 pg 55)  
Indianapolis 500 preview (5-1 pg 35)  
KELLY, C. J.  
Automation News Report (1-1 pg 66) (2-1 pg 55) (3-1 pg 47)
- L  
LLOYD, NORMAN M.  
Aluminum use in passenger cars (1-15 pg 55)  
Plastics in the automotive industries, Part I, nylon (4-1 pg 47)  
Steel structure of Bristol T-188 aircraft (4-15 pg 66)
- M  
MAIR, ALEX. C.  
Corvair 95 truck and station wagon (abstract) (3-15 pg 325)  
MARTIN, ANDREW  
Push rod cover fabrication (GM) (4-1 pg 44)  
MARTINUZZI, PIO FRANCO  
Automotive gas turbines, Part I (2-15 pg 58)  
Automotive gas turbines, Part II (3-1 pg 34)  
Automotive gas turbines, Part III (4-1 pg 39)  
MOELLER, E. G.  
Chrysler Corp.'s slant six engine (abstract) (2-15 pg 65)  
MOGERMAN, W. D.  
Gas turbines for automotive use (International Nickel) (5-15 pg 82)
- P  
PARKINSON, L. R.  
Project management (5-15 pg 80)  
PURCELL, WM. F. H.  
John Deere tractor design (5-15 pg 72)
- Q  
QUINN, HUGH C.  
Ford styling (1-1 pg 33)
- R  
ROSE, KENNETH  
Boring tractor gear case at Allis-Chalmers (6-1 pg 47)  
Connecting rod production at Evinrude (6-1 pg 42)  
Construction Equipment Trends (1-15 pg 75) (3-1 pg 37) (5-15 pg 100)  
Deere Waterloo works, Part I (4-1 pg 41)  
Deere Waterloo Works, Part II (4-15 pg 64)  
Deere Waterloo Works, Part III (5-1 pg 52)  
Deere Waterloo Works, Part IV (6-1 pg 52)  
Farm Equipment Industry Report (3-1 pg 63) (4-15 pg 82) (5-15 pg 102)  
Rubber tires use in construction equipment (5-15 pg 69)
- S  
SCHMIDT, WILLIAM W.  
Tomorrow's transportation display (McLouth Steel) (2-1 pg 41)  
SCOTT, DAVID  
Assembling Renault steering gears (3-1 pg 38)  
Leipzig Fair (5-1 pg 44)  
Tooling at Holland's DAF factory (2-15 pg 62)  
SPICE, S. M.  
Arc welding rear axle housings at Buick (abstract) (6-1 pg 44)
- T  
TSCHOPP, JOHN  
Spheroidizing of heading stock (Chicago Screw) (5-15 pg 120)  
TYLER, RICHARD B.  
Clues toward more mobility (6-1 pg 38)
- W  
WEERTMAN, W. L.  
Chrysler Corp.'s slant six engine (abstract) (2-15 pg 65)  
WEIGEL, RUSSELL C.  
Automotive plastics uses (5-15 pg 61)  
WEINERT, CHARLES A.  
Machine tool builders report (2-1 pg 49)  
Machine tool builders report (5-1 pg 46)  
Marine engines, Part I (1-15 pg 66)  
Marine engines, Part II (2-1 pg 44)  
National motor boat show (2-15 pg 55)  
News of the Machinery Industries (1-1 pg 60) (1-15 pg 88) (2-15 pg 78) (3-1 pg 52) (3-15 pg 286) (4-1 pg 54) (4-15 pg 80) (5-1 pg 59) (5-15 pg 85) (6-1 pg 56) (6-15 pg 87)  
Recreational boating (1-15 pg 63)  
Small gasoline engines (3-1 pg 29)  
Westinghouse machine tool conference (6-1 pg 35)  
WILLIAMS, W. F.  
Arc welding rear axle housings at Buick (abstract) (6-1 pg 44)  
WINTRINGHAM, JOHN S.  
Powerplants for passenger cars (Ethyl) (4-15 pg 55)
- COMPANIES  
A  
ACME MFG. CO.  
Grinder, axle housing (1-15 pg 84)  
AIR REDUCTION SALES CO.  
Holder, heliwell, Airco H16-A (3-1 pg 58)  
Tracer, electronic (3-15 pg 296)  
Welder, arc, industrial, MCM-AC Bumblebee S, (4-1 pg 58)  
Welder, multi-type (3-15 pg 304)  
Welding package, arc (6-1 pg 62)  
Welding process, mild steel (2-15 pg 80)  
AIRTOOL MFG. CO.  
Tapper, pneumatic, hand operated, Model 400-T (5-15 pg 90)  
ALBERTSON & CO.' INC.  
Grinders, air, Series 505 & 532 (4-1 pg 62)  
ALLEGHENY LUDLUM STEEL CORP.  
Carbide, cemented, steel-cutting (5-15 pg 97)  
Muffler, stainless steel, Thunderbird, MF-1 (2-15 pg 85)  
ALLIED CHEMICAL CORP.  
Valve, nylon tire, Glo-Cap (1-15 pg 85)  
ALLIS CHALMERS MFG. CO.  
Boring tractor gear case at Allis-Chalmers (6-1 pg 47)  
Engine, Diesel, industrial (1-1 pg 71)  
ALLISON DIV., GM CORP.  
High alloy castings in truck-installed gas turbine (3-15 pg 344)  
ALUMINUM CO. of AMERICA  
Pistons, aluminum (5-15 pg 98)  
AMERICAN BOSCH ARMA CORP.  
Wiper, windshield, heavy-duty (1-1 pg 71)  
AMERICAN BRAKE SHOE CO.  
Pump, hydraulic, airborne, AP2V (6-1 pg 67)  
AMERICAN DIE CASTING MACHINERY CO.  
Die casting machine, Model 1502 (3-15 pg 296)  
AMERICAN MACHINE & FOUNDRY CO.  
Self-propelled howitzer (4-1 pg 53)  
AMERICAN MOTORS CORP.  
New Twin Coach plant (4-15 pg 72)  
AMERICAN TOOL WORKS CO.  
Lathes, engine, tape control, Models 2010, 2413, 2514, & 3019 (4-15 pg 85)  
ARMOUR RESEARCH FOUNDATION  
Seal material, static (3-15 pg 310)  
ARMSTRONG CORK CO.  
Adhesive, neoprene, D-239 (5-15 pg 97)  
AUTO-TEST, INC.  
Tachometer, Model T402 (3-15 pg 304)  
B  
Finishing unit, barrel, Electratilt (6-15 pg 90)  
Spring maker (1-1 pg 64)  
BAY PRODUCTS, INC.  
Cabinet, maintenance (2-15 pg 80)  
BENCHMARK MFG. CO.  
Feed, roll, precision, Series 9PRF (5-1 pg 69)  
BENDIX CORP.

- Bearing, non-friction, Flex-  
ural Pivot (5-15 pg 97)  
Terminal assemblies (4-15  
pg 91)  
Testing equipment, automo-  
tive components (3-15 pg  
296)
- BI-RAIL-CO.  
Hook, lift, automatic, Auto-  
Bi-Hook (2-15 pg 80)
- BLANCHARD MACHINE CO.  
Grinder, surface, 108 in, ca-  
pacity (3-15 pg 304)
- BORG-WARNER CORP.  
Clutches, high-speed, spring  
loader (5-1 pg 66)  
Clutches, hydraulic (3-15  
pg 308)  
Converters, torque, off-high-  
way equipment (5-15 pg  
97)  
Retarder, hydraulic, Brake-  
Mate (2-15 pg 85)
- BOSCH, ROBERT CORP.  
Pump, injection, fuel (1-1  
pg 71)
- BOSWORTH MFG. CO.  
Automatic feed, orienting  
machine (4-15 pg 85)
- BRISTOL AIRCRAFT  
Steel structure of Bristol T-  
188 aircraft (4-15 pg 66)
- BRUMMER SEAL CO.  
Seal, main bearing (3-1 pg  
62)
- BRUNING, CHARLES CO., INC.  
Copying machine, Copyflex,  
Model 61 (5-1 pg 63)
- BUCKEYE TOOL CORP.  
Nut runner, torque control  
clutch (5-15 pg 89)
- BUFFALO FORGE CO.  
Drill press, hollow spindle,  
variable speed (5-15 pg 89)
- BUICK MOTOR DIV., GM  
CORP.  
Arc welding rear axle hous-  
ings at Buick (abstract)  
6-1 pg 44)  
Buick, Olds aluminum en-  
gines, Part I (4-15 pg 60)  
Buick, Olds aluminum en-  
gines, Part II (5-1 pg 49)  
Power pack, Buick aluminum  
V-8 engine (2-15 pg 85)  
Use of emission spectrom-  
eters at Buick (4-15 pg  
68)
- BULLARD CO.  
Lathe, multiple-spindle,  
Type M Mult-Au-Matic  
(6-1 pg 59)
- BURGMASER CORP.  
Drill, turret, automatic (1-15  
pg 81)
- C  
CATERPILLAR TRACTOR CO.  
Army testing gas turbine  
tractor (2-15 pg 61)  
Filtering element, oil (1-15  
pg 86)  
CAZENEUVE LATHES, INC.  
Lathe, tracer, HB-575 (3-15  
pg 298)  
CELANESE POLYMER CO.  
Celanese introduces acetal  
plastic (4-15 pg 74)  
CHAR-LYNN CO.  
Motors, orbit, hydraulic  
(2-15 pg 83)  
CHEVROLET MOTORDIV., GM  
CORP.  
Corvair 95 truck and station  
wagon (abstract) (3-15 pg  
325)  
CHICAGO SCREW CO.  
Spheroidizing of heading  
stock (5-15 pg 120)  
CHROMALLOY CORP.  
Anti-smog device, Mark IX  
(1-15 pg 85)  
CHRYSLER CORP.  
Blower fans balanced at  
Chrysler Airtemp (1-15  
pg 95)  
Chrysler Corp.'s slant six  
engine (abstract) (2-15  
pg 65)  
Inspection in quality control  
(abstract) (6-15 pg 104)  
Plastic foam gasket use in  
Chrysler (1-15 pg 62)  
Quality cost system at Chrys-  
ler (3-15 pg 316)  
CINCINNATI MILLING MA-  
CHINE CO.  
Milling machine, vertical,  
Hydro-Tel (4-1 pg 58)  
CLARK EQUIPMENT CO.  
Off-the-road equipment  
(1-15 pg 85)  
Truck, lift, gas powered,  
Stand-Up (2-1 pg 64)  
CLEVELAND WORM & GEAR  
DIV., EATON MFG CO.  
Drive, variable-speed (3-15  
pg 308)  
CONTINENTAL MOTOR CORP.  
Self propelled howitzer (4-1  
pg 53)  
CRANE PACKING CO.  
Lapping machine, pneumatic  
lifts (3-1 pg 59)  
CROSS CO.  
Transfer machine, chucking-  
type (2-15 pg 81)  
Transfer machine, pallet-  
type (4-15 pg 89)  
CROSSLEY MACHINE CO.  
Router, contour (1-15 pg  
81)
- D  
DANA CORP.  
Transmission, auxiliary,  
Spicer Model 7041 (6-1  
pg 67)  
DAVEY COMPRESSOR CO.  
Compressors, air (4-15 pg  
84)  
DEERE & CO.  
Deere Waterloo works, Part I  
(4-1 pg 41)  
Deere Waterloo Works, Part  
II, 4-15 pg 64)  
Deere Waterloo Works, Part  
III, (5-1 pg 52)  
Deere Waterloo Works, Part  
IV (6-1 pg 52)  
John Deere tractor design  
(5-15 pg 72)  
Welding cluster gears at John  
Deere (1-15 pg 104)  
DELCO-REMY DIV., GM CORP  
Ignition, breakerless (2-1  
pg 66)  
DETROIT DIESEL ENGINE  
DIV., GMC.  
Numerical control at Detroit  
Diesel (2-15 pg 68)  
DETROIT TRANSMISSION  
DIV., GM CORP.  
Aluminum transmission case  
cover production (1-15  
pg 68)  
DE Vlieg MACHINE CO.  
Presetting machine, tool  
(6-15 pg 91)  
DIXON CORP.  
Packings, cup, Rulon (4-1  
pg 59)  
DODGE DIV., CHRYSLER  
CORP.  
Block, aluminum, engine,  
Dodge Lancer (3-1 pg 62)  
DUFF-NORTON CO.  
Safety device, press, Saft-T-  
Block (1-1 pg 64)
- E  
E-T-A PRODUCTS CO.  
Relay, time delay (5-15 pg  
90)  
EATON MFG. CO.  
Drive units (6-1 pg 62)  
Suspension, axle (5-15 pg 98)  
Transmissions, lightweight,  
Diesel engines (6-15 pg  
94)  
EDGCOMB ENGINEERING &  
ENGRAVING CO.  
Scale attachment, vernier,  
Evertrue (3-1 pg 60)  
ETHYL CORP.  
Powerplants for passenger  
cars (4-15 pg 55)
- EVINRUDE MOTORS  
Connecting rod production at  
Evinrude (6-1 pg 42)  
EX-CELL-O CORP.  
Arc light, optical inspection  
(6-15 pg 91)  
Boring machine, continuous,  
transmission parts (2-1  
pg 64)  
Boring machine, four-way,  
aluminum crankcase (5-15  
pg 90)  
Boring machine, two-spindle  
(5-15 pg 89)  
Metal remover, electrical  
discharge, Lectra-Form  
(6-1 pg 62)  
EXPERT WELDING MACHINE  
CO.  
Soldering machine, automa-  
tic, seal radiators (6-15  
pg 91)
- F  
FARREL-BIRMINGHAM CO.,  
INC.  
Drill, point thinner (6-1 pg  
58)  
FEDERAL MACHINE & WELD-  
ER CO.  
Welder, dial-type holder (1-  
15 pg 83)  
FEDERAL PRODUCTS CORP.  
Comparator, compact, elec-  
tronic, Model 136B-2 (5-  
15 pg 88)  
Gage, control, air-electric  
(5-15 pg 90)  
FILTERS, INC.  
Filter and gasoline separator  
(2-15 pg 85)  
FIRESTONE TIRE & RUBBER  
CO.  
Tire, skid resisting (2-15  
pg 84)  
FOAM PRODUCTS MFG, LTD.  
Soundproofing foam (5-15  
pg 154)  
FOOTE-BURT CO.  
Drilling, tapping machine, V-  
12 aluminum engine crank-  
cases (3-15 pg 303)  
Transfer machine, 17-station  
64-spindle (4-1 pg 59)  
FORD MOTOR CO.  
Door lock testing at Ford  
(6-15 pg 79)  
Electronics control quench-  
ing operation (4-1 pg 69)  
Ford Motor Co. management  
(2-1 pg 25)  
Ford styling (1-1 pg 33)  
Ford tractor (6-15 pg 70)
- G  
GARRETT, GEORGE K. CO.

- Fastener, spring (2-15 pg 85)
- GEAUGA INDUSTRIES CO.  
Seal, auto-body, rubber (1-15 pg 86)
- GENERAL MOTORS CORP.  
Army testing gas turbine tractor (2-15 pg 61)  
Foundry reliability (abstract) (3-15 pg 336)
- GENERAL MOTORS CORP., DETROIT TRANSMISSION DIV.  
Hydra-matic transmissions for 1961 (abstract) (2-15 pg 66)
- GENERAL MOTORS CORP., FISHER BODY DIV.  
Moving bolster press line (3-1 pg 42)
- GISHOLT MACHINE CO.  
Lathe, threading, automatic, tracer, Cri-Dan B (4-1 pg 59)
- GOODRICH, B.F. CHEMICAL CO.  
Coating, vinyl, Strip-Guard (3-15 pg 310)
- GOODRICH, B. F. TIRE CO.  
Tire, two-ply, compact cars (3-15 pg 310)
- GOODYEAR TIRE & RUBBER CO.  
Tire, translucent (1-15 pg 85)  
Wheel, rust-proof, aircraft (4-14 pg 91)
- GREENLEE BROS. & CO.  
Indexing machine, automatic, cast iron cylinders (3-15 pg 298)
- GRINDING & POLISHING MACHINERY CORP.  
Grinders, abrasive belt (3-15 pg 298)
- H**
- HANNIFIN CO.  
Power units, pump, double (2-1 pg 64)
- HAUGH, FRANK G.CO.  
Truck, lift, 4-wheel drive (1-1 pg 64)
- HEALD MACHINE CO.  
Boring machine, rear axle housings (2-15 pg 82)  
Grinder, internal, Model 090A (6-1 pg 58)
- HOLLEY CARBURETOR CO.  
Float, carburetor (3-1 pg 62)  
Valve, carburetor (1-15 pg 86)
- HUGHES AIRCRAFT CORP.  
Machine tool, tape controlled (1-15 pg 82)
- I**
- IMPERIAL MACHINE PRODUCTIONS CO.  
Carburetor, natural gas (4-1 pg 63)
- INDUCTION HEATING CORP.  
Annealing unit, auto brackets (5-1 pg 63)  
Hardening machine, bearing races, Ther-monic, Model 500 (3-1 pg 59)  
Heater, induction, hardening, automatic (2-15 pg 82)
- INDUSTRIAL RAYON CORP.  
Tire cord, rayon (2-15 pg 84)
- INDUSTRIAL TECTONICS, INC.  
Balls, precision (3-15 pg 308)
- INTERNATIONAL HARVESTER CO.  
Drive, fan, automatic, heavy-duty (1-15 pg 86)  
Four-cylinder engine at IHC (4-15 pg 58)  
IHC new assembly plant (4-1 pg 35)  
Machining large differential carriers at IHC (4-15 pg 70)
- INTERNATIONAL NICKEL CO. INC.  
Gas turbines for automotive use (5-15 pg 82)
- J**
- JACOBS MFG. CO.  
Brake, Diesel engines (3-1 pg 62)
- K**
- K-D LAMP CO.  
Marker, clearance, truck (1-1 pg 71)
- KAISER ALUMINUM & CHEMICAL CORP.  
Alloy, aluminum, 5252 (5-15 pg 154)
- KELSEY-HAYES CO.  
Controller, electric, trailer brakes (5-1 pg 66)
- KINGSBURY MACHINE TOOL CORP.  
Machine, multi-operation, speedometer frame die castings (4-15 pg 84)
- L**
- LAMB, F. JOS. CO.  
Drilling machine, slip-spindle (6-15 pg 90)  
Inline machine, cast aluminum cylinder blocks (2-15 pg 80)
- Machine, 4-way, tunnel type column (6-1 pg 62)
- LEBOW ASSOCIATES  
Transducer, torque, testing (5-1 pg 69)
- LEE RUBBER & TIRE CORP.  
Tire, premium, passenger car, Ultra M 200 (5-15 pg 98)
- LEECE-NEVILLE CO.  
Alternator, 40-amper, Series 6000 (2-15 pg 84)
- LEONETTI ENTERPRISES  
Coating, corrosion preventative, Permaspray (5-1 pg 66)
- LIDO TOOLS  
Boring head, adjustable (3-1 pg 58)
- LIMA ELECTRIC MOTOR CO.  
Drive, variable speed (1-15 pg 81)
- LINDBERG ENGINEERING CO.  
Furnace, atmosphere, electric (3-15 pg 298)
- LINK-BELT CO.  
Frames, take-up, bearing (3-15 pg 303)
- M**
- MacLEAN-FOGG LOCK NUT CO.  
Nut, two-way lock (5-1 pg 66)
- MAGNAFLUX CORP.  
Feeding machines, tubing, bar stock (4-15 pg 89)
- MANCO MFG. CO.  
Punch, metal, Model MP-336 (6-1 pg 62)
- MAREMONT MUFFLER DIV.  
Muffler, coated (2-15 pg 84)
- McLOUTH STEEL CORP.  
Tomorrow's transportation display (2-1 pg 41)
- MECHA FINISH CORP.  
Deburring unit, 2-spindle (4-1 pg 62)
- MICHIGAN TOOL CO.  
Checking system, tooth-spacing (6-1 pg 59)  
Table, indexing (3-15 pg 298)
- MICRO VU  
Comparator, optical, 300 (1-15 pg 81)
- MILWAUKEE CYLINDER CO.  
Cylinders, hydraulic (4-15 pg 84)
- MINNEAPOLIS-HONEYWELL REGULATOR CO.  
Electronics control quenching operation (4-1 pg 69)  
Switch, limit, lamp (4-15 pg 89)  
Switches, interlock (6-1 pg 58)
- Valve assembly, dual (4-1 pg 59)
- MINNESOTA MINING & MFG CO.  
Barrel, tumbling, Vibro-tone (5-1 pg 63)
- MOLDED FIBER GLASS BODY CO.  
Panels, fiber-glass, truck, trailer liners (5-15 pg 98)
- MONSANTO CHEMICAL CO.  
Enamels, auto-body (3-15 pg 310)
- MORRIS DEODERIZERS  
Fume, control, internal combustion engines (6-15 pg 94)
- MOTOR WHEEL CORP.  
Drum, brake, heavy-duty (4-1 pg 63)
- MUELLER INDUSTRIES  
Bushings, drill, holder (6-15 pg 90)
- N**
- NAMISCO, INC.  
Electric car, compact, industrial use, Delwick (5-15 pg 98)
- NATIONAL BROACH & MACHINE CO.  
Loader, automatic (1-15 pg 84)  
Loader, automatic, gear shaving machine (6-15 pg 91)  
Shaver, gear, cutter head (3-1 pg 58)
- NEW YORK AIR BRAKE CO., WATERTOWN DIV.  
Hydrostatic transmission for mobile equipment (3-1 pg 33)
- NOPCO CHEMICAL CO.  
Insulating foam, urethane, Lockfoam H-602 (5-15 pg 97)
- O**
- OLDSMOBILE DIV., GM CORP.  
Buick, Olds aluminum engines, Part II (5-1 pg 49)  
Oldsmobile component production, Part II (1-1 pg 38)  
Reliability at Oldsmobile (3-1 pg 44)
- ORTMAN-MILLER MACHINE CO.  
Cylinder, air, Series K (5-1 pg 63)
- P**
- PANGBORN CORP.  
Finishing machine, vibratory (2-1 pg 64)



**PARKER-HARTFORD CORP.**  
Dresser, optical-wheel, Op-  
tidress (6-1 pg 59)

**PELLON CORP.**  
Wheel, press on, poly-  
urethane (6-15 pg 94)

**PHILA. STEEL & WIRE CORP.**  
Nut and washer, pre-  
assembled, Nups (2-15 pg  
81)

**PHILLIPS MFG. CO.**  
Preheaters, engine, thermo-  
static, Zero Start (3-1  
pg 62)

**PINES ENGINEERING CO., INC.**  
Finishing machine, double-  
end, automatic (5-15 pg  
88)

**PORTAGE DOUBLE QUICK,  
INC.**  
Tool, cut-off, adjustable (3-  
15 pg 308)

**PRECISION WELDER & FLEX-  
OPRESS CORP.**  
Feed unit, press (1-1 pg 64)

**PRENCO MFG. CO.**  
Simulator, vacuum, Series  
VA (3-15 pg 304)

**PUNCH PRODUCTS CORP.**  
Sharpeners, punch and die (3-  
15 pg 298)

**PUROLATOR PRODUCTS, INC.**  
Filter, liquid gas (3-1 pg 58)

**Q**

**QUANTUM, INC.**  
Rubber, slippery (5-15 pg  
154)

**R**

**RADIONICS, INC.**  
Cameras, radiography irid-  
ium (1-15 pg 84)

Gages nuclear, Micrometer  
(3-1 pg 60)

**RAYBESTOS-MANHATTAN,  
INC.**  
Friction material production  
(1-15 pg 72)

**READY POWER CO.**  
Diesel-electric units, mate-  
rial handling trucks (1-15  
pg 86)

**RELANCE ELECTRIC & EN-  
GINEERING CO.**  
Gearmotors, right-angle (6-  
1 pg 59)

**RENAULT (FRANCE)**  
Assembling Renault steering  
gears (3-1 pg 38)

**REYNOLDS METALS CO.**  
Luster preserving (3-15 pg  
310)

**RIVETT LATHE & GRINDER,  
INC.**

Lathe, one-motion control  
(1-15 pg 84)

**ROBERTS ELECTRIC CO.**  
Transmission, hydraulic,  
machine tools (1-1 pg 64)

**ROCHESTER PRODUCTS DIV.,  
GM CORP.**  
Push rod cover fabrication  
(4-1 pg 44)

**ROCKWELL MFG. CO.**  
Grinder, 7-inch, safety fea-  
tures (3-15 pg 308)

**ROCKWELL-STANDARD  
CORP.**  
Brake, commercial vehicles  
(2-1 pg 66)

Brake, heavy-duty (4-15 pg  
91)

Suspension, tandem, trucks  
(6-1 pg 67)

**ROGERS CORP.**  
Phenolic, medium-impact,  
RX 522 (5-15 pg 97)

**S**

**SAGINAW STEERING GEAR  
DIV., GM CORP.**  
Cold extrusion at Saginaw  
(6-1 pg 48)

**SANBORN CO.**  
Oscillograph, recording sys-  
tem, Model 297 (2-15 pg  
81)

**SANDERS ASSOCIATES, INC.**  
Positioning, programming  
system (3-15 pg 303)

**SEIBERLING RUBBER CO.**  
Tire, nylon-rayon (3-15 pg  
310)

**SENECA FALLS MACHINE CO.**  
Lathe, automobile axle shafts  
Model AR (4-15 pg 85)

**SHEFFIELD CORP.**  
Gage, automatic, brake  
drums (1-15 pg 82)

**SHELL CHEMICAL CO.**  
Adhesive, epoxy paste, Epon  
901 (3-15 pg 310)

**SHULER AXLE CO., INC.**  
Axle, trailer, light-weight  
(2-15 pg 84)

**SHURCLOSE SEAL CO.**  
Coupling material, flexible  
inserts, Elastine (5-15  
pg 97)

**SMITH, A. O. CORP.**  
Die quenching machine at A.  
O. Smith (6-1 pg 66)

**SNYDER CORP.**  
Transfer machine, 20-sta-  
tion, crankshafts (3-1 pg  
60)

**SOUTHERN GAGE CO.**  
Gage, snap-plug, internal  
(2-15 pg 81)

**SPECIAL ENGINEERING  
SERVICE, INC.**

Feed device, air, punch  
presses (4-1 pg 58)

**SPECIAL MACHINERY CO.**  
Feeder, press, single pieces  
(3-1 pg 60)

**SPECO, INC.**  
Paint, aluminum, Heat-Rem  
H-120-A (2-15 pg 84)

**SPEEDLAP CORP.**  
Lapping machine, 12-inch  
(6-15 pg 90)

**STANDARD ELECTRICAL  
TOOL CO.**  
Milling machine, spindle (1-  
15 pg 83)

**STANDARD PRESSED STEEL  
CO.**  
Nut, self-locking (2-15 pg  
83)

**STELLING & HELLING CO.**  
Filters, air (6-15 pg 94)

**STEWART, F. W. CORP.**  
Drives, angle, Model  
9056HF-T (6-1 pg 58)

**STEWART-WARNER CORP.**  
Heater, school bus, thermo-  
statically-controlled (2-1  
pg 66)

Preheater, engine, gas or  
Diesel units (4-15 pg 91)

**STOW MFG. CO.**  
Gear box, 90 deg (6-1 pg 67)

**SWIFT OHIO CORP.**  
Welding, trimming machines,  
automotive ring gears (6-  
15 pg 90)

**SYNCHRO CORP.**  
Alternator, heavy duty unit  
(6-15 pg 94)

**T**

**THOMPSON RAMO WOOL-  
DRIDGE, INC.**  
Slipper-type pump (2-15 pg  
70)

Turbocharger, lightweight,  
Model 317 (4-15 pg 91)

**THOMSON INDUSTRIES, INC.**  
Bushings, ball, Inst-258 &  
Inst-396 (1-1 pg 71)

**TIFFANY, INC.**  
Self starters, gasoline en-  
gines, 12-hp (6-15 pg 94)

**TINIUS OLSON TESTING MA-  
CHINE CO.**  
Testing machine, ElecTmatic  
(5-15 pg 88)

**TITCHENER, E. H. & CO.**  
Grill, truck, heavy-duty (4-1  
pg 63)

**TWIN COACH CO.**  
New Twin Coach plant (AMC)  
(4-15 pg 72)

**TWIN DISC CLUTCH CO.**  
Twin Disc power-shift trans-  
mission (6-1 pg 48)

**U**

**U.S. INDUSTRIES, INC.**  
Feeder units, parts, Transfe-  
Robot (5-15 pg 89)

Lathe, Blue Chip Clearing  
Model 6040 (4-1 pg 62)

**U.S. RUBBER CO.**  
Dashboard instrument clust-  
er, plastic (2-1 pg 66)

Tire, all-butyl (1-15 pg 85)

Tires, truck, synthetic (2-1  
pg 66)

**U.S. STEEL CORP.**  
Steel plate, free machining (6-  
15 pg 94)

**UNION FORGING CO.**  
Arm, steering, one piece (3-  
1 pg 62)

**UNITED SHOE MACHINERY  
CORP.**  
River, large flange, aluminum  
(5-15 pg 97)

**UNIVERSAL-CYCLOPS STEEL  
CORP.**  
Steel, stainless, free-  
machining, Uniloy 303MA  
(5-1 pg 66)

**V**

**VAN KEUREN CO.**  
Micrometer, light wave, Mo-  
del LWM-60 (6-1 pg 58)

**VELVAC, INC.**  
Brake, power, Vacuum, Uni-  
Brake (4-1 pg 63)

**VICKERS, INC.**  
Motorpump, hydraulic air-  
craft (4-1 pg 63)

Valves, directional (5-1 pg  
63)

**W**

**WALL COLMONY CORP.**  
Alloy, brazing, Microbras S  
(3-15 pg 303)

**WELCH ALLYN, INC.**  
Inspecting device, small bore  
(3-15 pg 298)

**WELLS, W. F. & SONS, INC.**  
Saw, metal cutting, Model  
L-9 (5-1 pg 63)

**WESTERN MFG. CO.**  
Transmission, heavy-duty,  
Model 18700 EC (4-1 pg  
58)

**WESTINGHOUSE ELECTRIC  
CORP.**  
Welder, arc, ac-dc, Model  
TR (4-15 pg 84)

Westinghouse machine tool  
conference (6-1 pg 35)

**WHITNEY, W. A. MFG. CO.**  
Presses, hydraulic (3-15  
pg 296)



# **AUTOMOTIVE INDUSTRIES**

---

Published Semi-Monthly

## **INDEX**

Volume 125

July 1 to December 15

1961

Articles by Subject	Page 3
Authors	Page 8
Companies	Page 9

CHILTON COMPANY, PHILADELPHIA 39, PA.



**--A--**

**ABSTRACTS**

Plastic uses and requirements (Ford) (7-1 pg 35)  
Pontiac Tempest drive line (7-1 pg 39)

**AGRICULTURAL EQUIP.**

**PRODUCTION**

Ford tractor plant (8-1 pg 46)  
Heat treating gears at Oliver (7-1 pg 43)  
Tooling at IHC (7-15 pg 78)

**AIRCRAFT & MISSILE**

**GENERAL**

Airbriefs (7-1 pg 29) (9-1 pg 142)  
SAE aeronautic meeting (12-1 pg 54)  
Vickers hydraulic conference (12-15 pg 120)  
Assembly --See Production

**ASSOCIATIONS & ORGANIZATIONS**

See also Government Agencies & Activities and Meetings  
Architects of the automotive future, Part II (7-15 pg 73)  
Automotive reliability (NMT BA) (9-1 pg 73)  
Automotive reliability conference (ASQC) (8-1 pg 41)  
Automotive uses of steel castings (SFSA) (8-1 pg 35)  
Gray iron uses (7-15 pg 57)  
Metal show preview (ASM) (10-15 pg 83)  
SAE aeronautic meeting (12-1 pg 54)

**--B--**

**BRAKES**

See also New Developments  
Cadillac for 1962 (10-1 pg 48)  
Rambler American cars for 1962 (10-1 pg 56)  
Sintered-iron brake lining (Chevrolet) (8-15 pg 69)

**BUSES**

**STATISTICS**

**Registrations (Total)**

Forecast of 1961 motor vehicle registrations (11-1 pg 22)

**BUSINESS CONDITIONS**

See also Financial News  
Industrial engine developments (8-15 pg 59)  
Machine tool builders report (8-1 pg 48)  
Machine tool builders report (11-1 pg 49)  
Metals (7-1 pg 71) (10-1 pg 75) (11-1 pg 90) (12-1 pg 70)

**--C--**

**CASTING**

See also Production  
Automotive uses of steel castings (8-1 pg 35)  
Engine production at John Deere (Perfect Circle) (11-15 pg 66)  
Gray iron uses (7-15 pg 57)

**CONSTRUCTION EQUIP.**

**GENERAL**

Construction Equipment Trends (7-15 pg 79)

**ENGINES**

Gas turbine developments at GM (8-15 pg 73)

**CONTRACTS**

Government Contracts (7-15 pg 116) (8-15 pg 124) (9-15 pg 114) (10-15 pg 114)

Conventions - See Meetings

**CORPORATIONS**

GM methods at work (12-1 pg 37)  
Pontiac reliability program (11-1 pg 37)

Purchasing at Chrysler Corp. (11-1 pg 42)  
Product planning (Ford) (12-15 pg 92)

**--D--**

Design - See Aircraft, Buses, Engines, Passenger Cars, Tractors, Trucks

Diesel Engines - See Engines

**--E--**

Earnings - See Financial News

**ELECTRONICS & ELECTRICAL EQUIP. (Automation)**

See also New Developments  
Control equipment at Oldsmobile plant (7-1 pg 48)  
Die stamped circuits (Dytronics) (11-1 pg 58)  
Engineering features of 1962 cars (11-15 pg 57)  
Lucas electronic ignition system (8-1 pg 50)  
Numerically controlled machine tools (International Harvester) (Deere) (7-15 pg 72)  
Transistorized ignition systems (Motorola Semiconductor Products) (8-15 pg 70)

**EMPLOYMENT**

How to put more men to work (Editorial) (7-1 pg 33)

**ENGINES**

See also Agricultural Equip., Aircraft, Buses, Construction Equip., Passenger Cars, and Trucks

**DESIGN**

**Gas Turbine**

Gas turbine developments at GM (8-15 pg 73)

**Reciprocating**

Buick V-6 engine (10-1 pg 39)  
Engineering features of 1962 cars (11-15 pg 57)  
Ford Fairlane for 1962 (10-15 pg 80)

Industrial engine developments (8-15 pg 59)  
OMC aluminum industrial engines (11-15 pg 60)  
Rotary cylinder engine (William R. Selwood) (8-1 pg 50)  
Volkswagen design and production (8-15 pg 65)

**PRODUCTION**

**Reciprocating**

Aluminum cylinder block production at Chrysler (12-1 pg 51)  
Aluminum cylinder block production at GM (7-15 pg 77)  
Engine production at John Deere (Perfect Circle) (11-15 pg 66)

Ford foundries (11-1 pg 46)

**STATISTICS**

**Specifications**

Auto-Technics data sheets (11-15 pg 79)  
New Rambler Classic 6 and Ambassador V-8 (10-15 pg 81)  
Selected data of 1962 passenger cars (12-15 pg 68)

Exhibits - See Shows

**--F--**

**FINANCIAL NEWS**

See also Business Conditions  
Construction Equipment Trends (7-15 pg 79)

**FOREIGN BUSINESS ACTIVITIES**

Car vibrations and noise (Peugeot) (8-15 pg 76)  
European Round-up (7-15 pg 50) (8-15 pg 52) (9-15 pg 54) (10-15 pg 48) (11-15 pg 50)  
Die casting at Toyo Kogyo plant (12-15 pg 48)  
High performance Minicar (11-1 pg 57)

Lucas electronic ignition system (8-1 pg 50)  
 Renault Dauphine for 1962 (10-1 pg 55)  
 Rotary cylinder engine (William R. Selwood) (8-1 pg 50)  
 Volkswagen design and production (8-15 pg 65)  
 Volkswagen for 1962 (10-1 pg 49)

--G--

**GEARS**

See also Agricultural Equip., Aircraft, Buses, Construction Equip., New Developments, Passenger Cars, Trucks  
 Heat treating gears at Oliver (7-1 pg 43)

**GOVERNMENT AGENCIES & ACTIVITIES**

See also Associations & Organizations  
 Government Contracts (7-15 pg 116) (8-15 pg 124) (9-15 pg 114) (10-15 pg 114)

--H--

**HAND TOOLS**

Power hand tools at Chrysler plant (12-1 pg 43)

**HEAT TREATING**

See also Metallurgy and Production  
 Assembling flywheel ring-gears (Induction Heating) (8-15 pg 80)

**HYDRAULICS**

Vickers hydraulic conference (12-15 pg 120)

--I--

**IGNITION SYSTEMS**

See also Agricultural Equip., Aircraft, Buses, Construction Equip., New Developments, Passenger Cars, and Trucks  
 Lucas electronic ignition system (8-1 pg 50)

Transistorized ignition systems (Motorola Semiconductor Products) (8-15 pg 70)

Inspection - See Production

--L--

Labor Relations - See Industrial Relations and Employment

**LUBRICATION & LUBRICANTS**

Engineering features of 1962 cars (11-15 pg 57)

--M--

**MACHINE TOOLS**

See also New Developments and Production

**GENERAL**

Allis-Chalmers engine plant, Part I (9-15 pg 65)  
 Allis-Chalmers engine plant, Part II (11-1 pg 51)  
 Automotive reliability (9-1 pg 73)  
 Machine tool builders report (8-1 pg 48)  
 Machine tool builders report (11-1 pg 49)  
 Making production pay (9-1 pg 76)  
 News of the Machinery Industries (7-1 pg 57) (7-15 pg 81) (8-1 pg 55) (8-15 pg 83) (9-15 pg 87) (10-1 pg 61) (10-15 pg 89) (11-1 pg 61) (11-15 pg 81) (12-1 pg 59) (12-15 pg 55)  
 Numerically controlled machine tools (International Harvester) (Deere) (7-15 pg 72)  
 Production equipment review (9-1 pg 75)  
 Tooling at IHC (7-15 pg 78)  
 Volkswagen design and production (8-15 pg 65)

Machining - See Production

**MARKETING**

See also Packaging, Production, and New Developments  
 Automotive reliability conference (8-1 pg 41)

Automotive uses of steel castings (8-1 pg 35)  
 Gray iron uses (7-15 pg 57)  
 Industrial engine developments (8-15 pg 59)  
 Machine tool builders report (8-1 pg 48)  
 Machine tool builders report (11-1 pg 49)  
 Plastic uses and requirements (Ford) (abstract) (7-1 pg 35)  
 Plastics in the automotive industries, Part II ... Epoxies (7-15 pg 65)  
 Plastics in the automotive industries, Part III ... Fluorocarbons (9-15 pg 73)  
 Plastics in the automotive industries, Part IV ... Polyethylene (11-15 pg 69)

**MATERIALS HANDLING**

Allis-Chalmers engine plant, Part II (11-1 pg 51)  
 Aluminum cylinder block production at Chrysler (12-1 pg 51)  
 Assembling flywheel ring-gears (Induction Heating) (8-15 pg 80)  
 Ford tractor plant (8-1 pg 46)  
 Forging at Eaton (12-1 pg 48)

**MEETINGS**

See also Associations & Organizations and Shows  
 ASBE meeting (11-15 pg 78)  
 Automotive reliability conference (8-1 pg 41)  
 Metal show preview (10-15 pg 83)  
 SAE aeronautic meeting (12-1 pg 54)  
 Vickers hydraulic conference (12-15 pg 120)

**METALLURGY**

See also Metals  
 Die casting at Toyo Kogyo plant (12-15 pg 48)  
 Gray iron uses (7-15 pg 57)  
 Metal show preview (10-15 pg 83)  
 Sintered-iron brake lining (Chevrolet) (8-15 pg 69)  
 Titanium-carbide tool materials (Ford) (9-15 pg 121)

**METAL**

See also Metallurgy

**GENERAL**

Metal show preview (10-15 pg 83)  
 Metals (7-1 pg 71) (10-15 pg 75) (11-1 pg 90) (12-1 pg 70)

**ALUMINUM**

Aluminum cylinder block production at Chrysler (12-1 pg 51)  
 Aluminum cylinder block production at GM (7-15 pg 77)  
 OMC aluminum industrial engines (11-15 pg 60)

**IRON**

Ford foundries (11-1 pg 46)  
 Gray iron uses (7-15 pg 57)

**STEEL**

Automotive uses of steel castings (8-1 pg 35)  
 Steelmaking process (Crucible Steel) (7-1 pg 52)

**ZINC**

Mechanical plating process at Mellows (Minnesota Mining & Mfg.) (8-1 pg 45)

**OTHER**

Titanium-carbide tool materials (Ford) (9-15 pg 121)

**MILITARY EQUIP. & ACTIVITIES**

See also Government Agencies & Activities and Production  
 A salute to ordnance (Editorial) (12-1 pg 35)  
 Gas turbine developments at GM (8-15 pg 73)  
 Government Contracts (7-15 pg 116) (8-15 pg 124) (9-15 pg 114) (10-15 pg 114)

--N--

**NEW DEVELOPMENTS**

**NEW PLANT & PROD. EQUIP.**

Additive, lapping compound (Wheel Trueing Tool) (10-15 pg 87)



- Adhesives, modified epoxy (Minnesota Mining & Mfg.) (12-1 pg 62)
- Alloys, stainless steel, corrosion-resistant (Universal Cyclops Steel) (10-1 pg 65)
- Balancer, single plane, electronic (Stewart-Warner) (7-15 pg 85)
- Bars, lead, precision (National Broach & Machine) (7-15 pg 87)
- Bath process, molten-salt, Tuffride (Kolene) (10-15 pg 84)
- Bearings, sleeve, Flex-Bloc (Link-Belt) (7-1 pg 60)
- Bender, metal tube, tape-controlled (Nu-Era) (12-1 pg 63)
- Boring bars (Kennametal) (8-15 pg 87)
- Boring machine, engine blocks (Ex-Cell-O) (8-15 pg 87)
- Broaching machine, steel gear blanks (General Broach & Engineering) (11-1 pg 69)
- Carbide, cutting - grade, Ferro-Tic-J (Chromalloy) (10-1 pg 64)
- Center column machine, governor hubs (Kingsbury Machine Tool) (12-15 pg 64)
- Chilling units, metallurgical (Cincinnati Sub Zero Products) (10-15 pg 87)
- Coating, surface, Plasmarc (Linde) (10-15 pg 87)
- Collector, dust, Model A-6 (Chicago Air Filter) (9-15 pg 91)
- Computer, general-purpose, flexibility (Computer Control) (12-1 pg 62)
- Control, drill, tap (Dumore) (8-15 pg 99)
- Control, numerical, machines, Autopromt (IBM) (7-1 pg 59)
- Control, resistance welder, automatic, Calimatic (Thompson Electric Welder) (7-1 pg 59)
- Control, timer, versatile, electronic (Protection Controls) (11-1 pg 69)
- Control unit, power, transistorized (Lindberg Engineering) (11-15 pg 93)
- Conveyor line, portable and semi-portable (May-Fran Mfg.) (11-1 pg 67)
- Copying unit, hydraulic (Cazeneuve Lathes) (11-15 pg 91)
- Coupling unit, air, chucking equipment (N.A. Woodworth) (12-1 pg 62)
- Cutting machine, abrasive (Beaver Pipe Tools) (12-15 pg 64)
- Detector, flaw, magnetic (Westinghouse Electric) (7-1 pg 60)
- Drill, tape controlled (Leland-Gifford) (7-15 pg 87)
- Drilling, tapping machine, multiple spindle, large components (Foote-Burt) (7-15 pg 121)
- Dryer, air, heat-treating, Model DBB (C.I. Hayes) (12-1 pg 63)
- Electrode, aluminum, welding, Airco 43 (Air Reduction Sales) (10-1 pg 64)
- Electrode, steel welding, Airco Easyarc 328 (Air Reduction Sales) (8-15 pg 87)
- Feed units, power, quill-type (Hause Machines) (8-15 pg 90)
- Flame cutter, numerically controlled (Air Reduction Sales) (8-1 pg 60)
- Flame-cutting machine, CM-75 Cadet (Linde) (10-1 pg 64)
- Furnace, electric, atmosphere (Sentry) (10-15 pg 84)
- Furnace, heat treat, automated (Lindberg Engineering) (12-15 pg 59)
- Furnaces, vacuum, metallurgy (F. J. Stokes) (10-15 pg 87)
- Gage, 12-inch height (Van Keuren) (9-15 pg 97)
- Gaging system, Micro-Set (Wales Strippit) (10-15 pg 84)
- Generator, gas, industrial (Lindberg Engineering) (9-15 pg 97)
- Grinder, abrasive belt (Grinding & Polishing Machinery) (8-15 pg 99)
- Grinder, surface, die (Brown & Sharpe Mfg.) (8-15 pg 99)
- Grinders, small-wheel, Series 921 (Thomas C. Wilson) (9-15 pg 97)
- Grinding wheel, ruby (Simonds Abrasive) (12-1 pg 62)
- Hardening technique, large gears (Induction Heating) (10-1 pg 65)
- Head, thread rolling (Landis Machine) (9-15 pg 91)
- Holder, lathe-tool (Dern Tool) (7-15 pg 122)
- Grinder, internal, double-end, automatic (Bryant Chucking Grinder) (9-15 pg 91)
- Impregnation machine, batch-type, sealing aluminum transmission cases (Prencos Products) (9-15 pg 99)
- Index machines, rotary, automotive door hinges (Snyder) (7-1 pg 60)
- Inspection, assembly system, piston, piston pin (RCA) (8-1 pg 59)
- Kiln, car-bottom, electrical (Lindberg Engineering) (7-15 pg 122)
- Lathe, bed-gap, heavy-duty (Nebel Machine Tool) (12-1 pg 63)
- Link, steering, flexible (Stow Mfg.) (11-15 pg 91)
- Machining unit, electrolytic (Anocut Engineering) (11-1 pg 67)
- Maintenance panel (Bendix) (7-15 pg 85)
- Marking machines, tube, Model ETMA (Acromark) (8-15 pg 90)
- Measuring unit, peak count, roughness (Micrometrical Mfg.) (8-15 pg 90)
- Micrometer, electronic (J. W. Dice) (12-15 pg 64)
- Mill, ram, turret, Model 645 (Index Machine) (7-15 pg 87)
- Milling machine, horizontal, vertical, angular, H-V (Cincinnati Milling Machine) (8-15 pg 99)
- Monitor, multi-machine (Electronic Associates) (11-1 pg 67)
- Motors, hydraulic (Vickers) (10-1 pg 65)
- Optical attachment, visual grinding (Parker-Hartford) (8-15 pg 90)
- Polisher, die (Parker-Hartford) (8-1 pg 60)
- Positioners, hydraulic, aircraft precision locating (Lockheed Aircraft) (9-15 pg 99)
- Power pack, welding, Model 60-T (Ampower Products) (9-15 pg 99)
- Power supply, welding, Model 225B (Raytheon) (11-15 pg 93)
- Press, trim, hydraulic (B & T Machinery) (11-1 pg 69)
- Pumps, motors, angle-type (Vickers) (7-15 pg 124)
- Pumps, vane-type (Vickers) (12-15 pg 59)
- Rails, wheeled, Versarail (M-H Standard) (8-15 pg 87)
- Reducer, speed (Eaton Mfg.) (12-1 pg 63)
- Reels, stock (Cooper Weymouth) (8-15 pg 87)
- Reels, stock, heavy-duty (Cooper Weymouth) (10-1 pg 64)
- Robot, industrial, electronic (U. S. Industries) (10-1 pg 64)
- Safeguard, die, slide transfer machines (Industrials Controls) (12-15 pg 59)
- Screw assemblies (Saginaw Steering Gear) (7-15 pg 87)
- Screwdriver, air-powered (Thor Power Tool) (11-15 pg 93)
- Separator, strip steel (Production Machinery) (11-1 pg 69)
- Shear, hydraulic, adjustable, Series 8N10 (Cincinnati Shaper) (7-1 pg 60)
- Spray booth, paint, Dispo (Binks Mfg.) (10-15 pg 84)
- Sprayer, thermo-plastic (Evans - Thompson Mfg.) (10-1 pg 64)
- Supply units, coolant machine tools (Brown & Sharpe Mfg.) (9-15 pg 99)
- Switch, control, Jet-Tron (Automation Devices) (8-15 pg 99)
- Table, rotary, angle (Machine Products) (11-1 pg 67)
- Tester, electric-weld tubing, magnetest SD-100 (Magnaflux) (12-15 pg 64)
- Tester, hardness, small parts (RCA) (8-1 pg 60)
- Tester, leak, transfer-type (Turner Bros.) (9-15 pg 97)
- Torch, valveless, welding (Air Reduction Sales) (7-15 pg 85)
- Transfer machine, axle housings (LaSalle Machine Tool) (11-15 pg 91)
- Transformer, vapor-cooled, resistance-welding (Yoder) (7-1 pg 60)
- Traverse mechanism, polyurethane foam production (Martin Sweets) (11-15 pg 91)
- Truck, industrial, Crate Mate (Stokvis Muniton) (7-15 pg 85)
- Truck, industrial, heavy-duty, electric-powered (Elwell-Parker Electric) (9-15 pg 91)
- Truck, industrial, narrow aisle, Transveyor (Automatic Transportation) (8-15 pg 90)
- Trunnion, tractor cylinders (Cross) (11-1 pg 67)
- Turning machine, vertical, electronic control, Model 291 (Kaydon Engineering) (8-1 pg 60)
- Vacuum, compressed air, industrial cleaning (American

- Cleaning Equipment) (9-15 pg 99)
- Valves, 2-way, hydraulic control (Hunt Valve) (7-1 pg 59)
- Welder, butt, automatic, galvanized steel strip (National Electric Welding Machines) (11-15 pg 93)
- Welder, semi-automatic (Hobart Bros.) (10-15 pg 84)
- Welder, stud, Mini-Stud (Bren/Weld) (12-15 pg 59)
- Wheel, grinding weld, Cup-N-Saucer (Norton) (7-15 pg 124)
- Whiteprinter, dry diazo, Starlet 80 (Charles Bruning) (11-1 pg 67)
- Winch-hoist, electric, My-Te Super (City Engineering) (8-1 pg 60)
- Wrench, air-impact, torque-control J-42T (Rotor Tool) (10-1 pg 65)
- NEW PRODS.-AUTOMOTIVE & AVIATION**
- Actuator, servo, rockets (Hydraulic Research & Mfg.) (9-15 pg 101)
- Adhesive, heat resistant, spray, EC-1828 (Minnesota Mining & Mfg.) (9-1 pg 150)
- Adhesive compound, general purpose, No. 2 (Arno Adhesive Tapes) (8-1 pg 65)
- Adhesives, printed circuit (Minnesota Mining & Mfg.) (8-15 pg 101)
- Alloy, master, titanium (Vanadium) (11-1 pg 77)
- Alloy, stainless steel (Armco Steel) (11-15 pg 85)
- Alternator, electronic (Motorola) (11-15 pg 85)
- Axle, truck, 3-speed (Eaton Mfg.) (7-15 pg 95)
- Axles, trailer (Rockwell-Standard) (7-15 pg 93)
- Ball joints, pivots, linkage (Link-Age) (9-1 pg 127)
- Batteries, storage, nickel-iron (Electric Storage Battery) (12-1 pg 66)
- Bearings, miniature (Barden) (8-15 pg 101)
- Bearings, sleeve, Neverlube (Carter Mfg.) (10-1 pg 72)
- Blower, axial, miniature (Globe Industries) (8-15 pg 101)
- Brake devices, air, motor freight (Williams Power Brake Equipment) (9-1 pg 125)
- Brake, disc, industrial (Good-year Tire & Rubber) (10-1 pg 72)
- Brake, magnetic, mill motors (Clark Controller) (10-1 pg 72)
- Camera, microfilm (Charles Brunning) (9-1 pg 150)
- Carburetor, air-valve, Stromberg CD (Bendix) (9-1 pg 156)
- Carburetor, Chrysler Corp. cars (Holley Carburetor) (10-1 pg 72)
- Carburetor, light - weight, Model 1909 (Holley Carburetor) (11-15 pg 85)
- Coil, ignition, Electronic Coil (Synco) (9-1 pg 150)
- Compound, tumbling, abrasive, Clepo (Frederick Gumm Chemical) (11-1 pg 77)
- Control, pushbutton, triple-function (Mackworth G. Rees) (11-15 pg 85)
- Counters, sub - miniature, Models 1005, 1006 (Haydon Instrument) (9-1 pg 125)
- Cryogenic valves, missiles (Hydraulic Research & Mfg.) (9-15 pg 101)
- Cutting fluid, Five - Star Cimcool (Cincinnati Milling Machine) (8-1 pg 65)
- Damper, vibration, torsional crankshaft (H.A. King) (11-1 pg 77)
- Descaling solution, Stainless No. 205 (Fluority Chemical Products) (9-1 pg 158)
- Differential, dual drive (Dual Drive) (7-15 pg 95)
- Differentials, precision (Instru-Lec) (9-1 pg 127)
- Engine Diesel, PowerRam Thermodyne (Mack Trucks) (11-1 pg 77)
- Fastener, clip-on, Type LHA 4972 (Elastic Stop Nut) (9-1 pg 123)
- Fastener, square nose, Type S (National Lock) (12-1 pg 66)
- Filter, inline paint, Model 41-1415 (Binks Mfg.) (12-15 pg 77)
- Filter, low-pressure (Bendix) (9-1 pg 125)
- Filter mask, featherweight (Minnesota Mining & Mfg.) (9-15 pg 101)
- Filter media, air (Honan Associated) (12-1 pg 66)
- Filters, aircraft (Purolator Products) (7-15 pg 95)
- Finish, stainless steel, Unibrite (Universal Cyclops Steel) (7-1 pg 65)
- Foam, anti-flame (Plastomer) (7-15 pg 95)
- Friction material, organic J-M Style 160 (Johns-Manville) (9-1 pg 123)
- Gage, filter line (Gresen Mfg.) (9-1 pg 156)
- Governor system, auxiliary (Holley Carburetor) (9-1 pg 125)
- Graphite metals (Dixon-Sint-alloy) (7-15 pg 93)
- Heater, engine, electric, Chromalox (Edwin L. Wiegand) (11-15 pg 85)
- Impregnating compound, Mereco 43-21 (Metachem Resins) (8-15 pg 101)
- Indicator, dial, Micro-Sure MSE 1/2K (Federal Products) (12-15 pg 77)
- Indicators, dial, precision (L. S. Starrett) (11-1 pg 77)
- Inhibitor, corrosion, oil soluble, Nopcochex D (Nopco Chemical) (9-1 pg 127)
- Laminates, electrical, Cimclad (Cincinnati Milling Machine) (7-15 pg 93)
- Lock, liquid, nut, bolt, Loc-tite (American Sealants) (7-15 pg 93)
- Lubricant, dry-film, cutting tools (Molykote) (12-15 pg 77)
- Masonry protection, Longlife (Flexrock) (9-15 pg 101)
- Motor-pump units (Robbins & Myers) (7-15 pg 93)
- Nuts, self-clinching (Penn-Engineering & Mfg.) (9-15 pg 101)
- Plungers, spring (Jergens Tool Specialty) (10-1 pg 72)
- Polystyrene, high impact, auto industry, Styron 444 (Dow Chemical) (12-15 pg 77)
- Power packages, hydraulic (Vickers) (9-1 pg 123)
- Pump, hydraulic, hand-operated (Sheffer) (9-1 pg 125)
- Pumps, hydraulic, heavy-duty (New York Air Brake) (8-15 pg 101)
- Reels, ground support, stainless-steel hose (Industrial Electrical Works) (12-1 pg 66)
- Resins, metal-filled, Epocast H-1759 (Furane Plastics) (9-1 pg 123)
- Rim, truck, disc and cast wheels (Goodyear Tire & Rubber) (7-1 pg 66)
- Rod, welding, Airco 1010 (Air Reduction Sales) (7-15 pg 95)
- Rubber, silicone, Silastic 241U (Dow Corning) (12-1 pg 66)
- Safety device, trucks, buses (Williams Power Brake Equipment) (8-1 pg 65)
- Screws, mounting (Illinois Tool Works) (7-15 pg 95)
- Seat, plastic valve, aviation (Robins Aviation) (8-1 pg 65)
- Silicone rubber, self-bonding (GE) (7-1 pg 66)
- Strainer, cleanable, Flo-gard (Warner Lewis) (9-1 pg 127)
- Straps, cable, self-locking (Budwig Mfg.) (7-15 pg 93)
- Suspension system, truck, Stabilaire (Western Unit) (7-1 pg 66)
- Switch, transfer (Induction Heating) (9-1 pg 123)
- Tape, strapping, vinyl-backed, Dutch Brand No. 400 (Johns-Manville) (9-1 pg 127)
- Thermocouple, small, Moni-temp Mark III (Advanced Products) (9-1 pg 127)
- Thermostat, engine (Thermel) (8-1 pg 65)
- Tire, passenger car polybutadiene rubber (U.S. Rubber) (7-15 pg 95)
- Transmission case, heavy-duty, Series 6000 (Dana) (7-1 pg 66)
- Transmission, truck, positive lubrication (Clark Equipment) (12-15 pg 77)
- Treads, wheel, caster, polyurethane (Rapids-Standard) (8-15 pg 101)
- Urethane packaging, Hewfoam (H.E. Werner) (9-1 pg 125)
- Valve, air-type, compact car (American Standard Controls) (11-1 pg 77)
- Valve, brake (Sarasota Products) (8-1 pg 65)
- Valve, divider - combiner, Model 1467 (Waterman Hydraulics) (9-15 pg 101)
- Valve, double check (Clippard Instrument Laboratory) (7-15 pg 95)
- Valve, dual-pressure, braking system (Crane) (8-15 pg 101)
- Ventilator, crankcase (Oildex) (11-1 pg 77)
- Vise, precision machine (C. H. Stoelting) (7-15 pg 95)
- Welder, ac, industrial (Westinghouse Electric) (7-15 pg 93)
- Wheel, spoke, cast - steel (Kelsey-Hayes) (12-1 pg 66)
- Wire cloth, high temperature applications (National-Standard) (11-15 pg 85)

--0--

Oils & Oiling-See Lubrication & Lubricants

Organizations - See Associations & Organizations and Meetings

**--P--**

**PASSENGER CARS**

**DESIGN**

**General**

Architects of the automotive future, Part II (7-15 pg 73)  
 Buick regular for 1962 (10-1 pg 42)  
 Buick special for 1962 (10-1 pg 41)  
 Cadillac for 1962 (10-1 pg 48)  
 Chevrolet regular cars for 1962 (10-1 pg 44)  
 Chrysler Corp. cars for 1962 (9-15 pg 68)  
 Engineering features of 1962 cars (11-15 pg 57)  
 Ford Fairlane for 1962 (10-15 pg 80)  
 Galaxie for 1962 (10-1 pg 53)  
 High performance Minicar (11-1 pg 57)  
 Mercury Comet for 1962 (10-1 pg 55)  
 Mercury Meteor for 1962 (11-15 pg 59)  
 Mercury Monterey for 1962 (10-1 pg 54)  
 Moving up in quality fast (Editorial) (8-15 pg 57)  
 New Rambler Classic 6 and Ambassador V-8 (10-15 pg 81)  
 Oldsmobile F-85 for 1962 (10-1 pg 52)  
 Oldsmobile 88 and 98 for 1962 (10-1 pg 50)  
 Passenger cars for 1962 (GM) (Ford) (Chrysler) (Studebaker-Packard) (American Motors) (10-15 pg 55)  
 Plastic uses and requirements (Ford) (abstract) (7-1 pg 35)  
 Pontiac for 1962 (10-1 pg 46)  
 Pontiac Tempest for 1962 (10-1 pg 47)  
 Rambler American cars for 1962 (10-1 pg 56)  
 Renault Dauphine for 1962 (10-1 pg 55)  
 Studebaker cars for 1962 (10-1 pg 57)  
 Thunderbird for 1962 (10-15 pg 79)  
 Volkswagen design and production (8-15 pg 65)  
 Volkswagen for 1962 (10-1 pg 49)

**Bodies**

Austin Healey Sprite II (7-15 pg 86)

**Components**

Automotive uses of steel castings (8-1 pg 35)  
 Car vibrations and noise (Peugeot) (8-15 pg 76)  
 Mechanical features of 1962 Chrysler Corp. cars (9-15 pg 61)  
 Pontiac Tempest drive line (abstract) (7-1 pg 39)  
 Sintered-iron brake lining (Chevrolet) (8-15 pg 69)

**Engines**

Buick V-6 engine (10-1 pg 39)

**PRODUCTION**

**General**

Chrysler Imperial assembly (7-1 pg 44)

**Components**

Assembling flywheel ring-gears (Induction Heating) (8-15 pg 80)  
 Die casting at Toyo Kogyo plant (12-15 pg 48)  
 Ford foundries (11-1 pg 46)

**Engines**

Aluminum cylinder block production at Chrysler (12-1 pg 51)  
 Aluminum cylinder block production at GM (7-15 pg 77)

**STATISTICS**

Registrations (Total)  
 Forecast of 1961 motor vehicle registrations (11-1 pg 22)

**Specifications**

AI technical data (8-15 pg 81)  
 Selected data of 1962 passenger cars (12-15 pg 68)

**PLANTS FACILITIES**

**NEW, CHANGES, OPERATIONS**

Allis-Chalmers engine plant, Part I (9-15 pg 65)

Allis-Chalmers engine plant, Part II (11-1 pg 51)  
 Aluminum cylinder block production at GM (7-15 pg 77)  
 Bolster press line at Fisher Body plant (7-1 pg 50)  
 Chrysler Imperial assembly (7-1 pg 44)  
 Factory expansions predicted for 1962 (10-1 pg 37)  
 Ford tractor plant (8-1 pg 46)  
 Forging at Eaton (12-1 pg 48)  
 Tractor assembly at Motec Industries (7-1 pg 46)

**PLASTICS**

See also New Developments ASBE meeting (11-15 pg 78)  
 Plastic uses and requirements (Ford) (abstract) (7-1 pg 35)  
 Plastics in the automotive industries, Part II...Expoxies (7-15 pg 65)  
 Plastics in the automotive industries, Part III...Fluorocarbons (9-15 pg 73)  
 Plastics in the automotive industries, Part IV...Polyethylene (11-15 pg 69)

**PRICES**

Plastic uses and requirements (Ford) (abstract) (7-1 pg 35)

**PRODUCTION**

See also Agricultural Equip., Aircraft, Buses, Construction Equip., Engines, Passenger Cars, and Trucks

**GENERAL**

Ford tractor plant (8-1 pg 46)

**CASTING**

Aluminum cylinder block production at Chrysler (12-1 pg 51)  
 Die casting at Toyo Kogyo plant (12-15 pg 48)  
 Ford foundries (11-1 pg 46)

**FORMING**

Forging at Eaton (12-1 pg 48)

**FORGING**

Bolster press line at Fisher Body plant (7-1 pg 50)

**HEAT TREATING**

Heat treating gears at Oliver (7-1 pg 43)

**MACHINING**

Aluminum cylinder block production at GM (7-15 pg 77)  
 Assembling flywheel ring-gears (Induction Heating) (8-15 pg 80)  
 Engine production at John Deere (Perfect Circle) (11-15 pg 66)  
 Making production pay (9-1 pg 76)  
 Processing ball-type parts (Micromatic Hone) (11-15 pg 64)  
 Tooling at IHC (7-15 pg 78)  
 Volkswagen design and production (8-15 pg 65)

**MATERIALS HANDLING**

Allis-Chalmers engine plant, Part I (9-15 pg 65)  
 Chrysler Imperial assembly (7-1 pg 44)  
 Tractor assembly at Motec Industries (7-1 pg 46)

**PLATING**

Mechanical plating process at Mellows (Minnesota Mining & Mfg.) (8-1 pg 45)

**QUALITY CONTROL**

Automotive reliability (9-1 pg 73)  
 Automotive reliability conference (8-1 pg 41)  
 Control equipment at Oldsmobile plant (7-1 pg 48)  
 Pontiac reliability program (11-1 pg 37)  
 Production equipment review (9-1 pg 75)

**--Q--**

Quality Control-See Production

**--R--**

Registrations-See Aircraft, Passenger Cars, Trucks



--S--

**SAFETY**

Architects of the automotive future, Part II (7-15 pg 73)  
Engineering features of 1962 cars (11-15 pg 57)  
Sales-See Agricultural Equip., Aircraft, Buses, Construction Equip., Hand Tools, Machine Tools, Passenger Cars, and Trucks.

**SHOWS**

See also Meetings  
Metal show preview (10-15 pg 83)  
Specifications - See Agricultural Equip., Aircraft, Buses, Construction Equip., Engines, Passenger Cars, and Trucks  
Sport Cars-See Passenger Cars  
Subcontracts-See Contracts

--T--

Tanks-See Military Equipment & Activities

**TESTING**

See also New Developments  
Car vibrations and noise (Peugeot) (8-15 pg 76)  
Rotary cylinder engine (William R. Selwood) (8-1 pg 50)

**TRANSMISSIONS**

See also Agricultural Equip., Buses, Construction Equip., Passenger Cars, and Trucks

**DESIGN**

**Manual**

American Motors shift control (10-1 pg 43)  
Rambler American cars for 1962 (10-1 pg 56)

**TRUCKS**

**DESIGN**

**General**

Chevrolet trucks for 1962 (9-15 pg 81)  
Ford trucks for 1962 (9-15 pg 80)  
GMC trucks for 1962 (10-1 pg 58)

**PRODUCTION**

**Components**

Forging at Eaton (12-1 pg 48)

**STATISTICS**

**Registrations (Total)**

Forecast of 1961 motor vehicle registrations (11-1 pg 22)

**TRUCKS (Industrial)**

**PRODUCTION**

Tractor assembly at Motec Industries (7-1 pg 46)

--U--

Unions-See Associations & Organizations

--W--

Wages-See Employment

**AUTHORS**

**A**

AINSWORTH, MARCUS  
Forecast of 1961 motor vehicle registrations (11-1 pg 22)  
BARCLAY, HARTLEY W.  
A salute to ordnance (Editorial) (12-1 pg 35)  
Exit - the "big finny" look (Editorial) (10-15 pg 53)  
Factory expansions predicted for 1962 (10-1 pg 37)  
Flirting with folly (Editorial) (11-1 pg 35)  
GM methods at work (12-1 pg 37)  
How to put more men to work (Editorial) (7-1 pg 33)  
Information for buyers expanded (12-15 pg 53)  
"Inside" story of better profits (Editorial) (9-1 pg 71)

Machine tool supremacy (Editorial) (11-15 pg 55)  
Moving up in quality fast (Editorial) (8-15 pg 57)  
Pontiac reliability program (11-1 pg 37)  
The 1962 look - coming up (Editorial) (9-15 pg 59)  
Time to re-evaluate your plans (Editorial) (8-1 pg 33)  
BOERICKE, WILLIAM F.  
Metals (7-1 pg 71) (10-1 pg 75) (11-1 pg 90) (12-1 pg 70)  
BOUQUET, RENE  
Car vibrations and noise (Peugeot) (8-15 pg 76)

**C**

**D**

DAMASCO, FRANK  
Vickers hydraulic conference (12-15 pg 120)  
DELOREAN, JOHN Z.  
Pontiac Tempest drive line (abstract) (7-1 pg 39)  
DONALDSON, F. KERMIT  
Automotive uses of steel castings (8-1 pg 35)

**E**

ERSTON, HERBERT U.  
Assembling flywheel ring-gears (Induction Heating) (8-15 pg 80)

**F**

FORRESTER, J. R., Jr.  
Plastic uses and requirements (Ford) (abstract) (7-1 pg 35)

**G**

GESCHELIN, JOSEPH  
ASBE meeting (11-15 pg 78)  
Allis-Chalmers engine plant, Part I (9-15 pg 65)  
Allis-Chalmers engine plant, Part II (11-1 pg 51)  
Aluminum cylinder block production at Chrysler (12-1 pg 51)  
Aluminum cylinder block production at GM (7-15 pg 77)  
Bolster press line at Fisher Body plant (7-1 pg 50)  
Buick V-6 engine (10-1 pg 39)  
Chrysler Imperial assembly (7-1 pg 44)  
Control equipment at Oldsmobile plant (7-1 pg 48)

Engineering features of 1962 cars (11-15 pg 57)  
Ford foundries (11-1 pg 46)  
Forging at Eaton (12-1 pg 48)  
Long range forecasting (12-15 pg 128)  
Mechanical features of 1962 Chrysler Corp. cars (9-15 pg 61)  
Observations (8-15 pg 103) (9-15 pg 103)  
Production equipment review (9-1 pg 75)  
Purchasing at Chrysler Corp. (11-1 pg 42)  
Sintered-iron brake lining (Chevrolet) (8-15 pg 69)

**K**

KAY, R. RAYMOND  
Airbriefs (7-1 pg 29) (9-1 pg 142)  
SAE aeronautic meeting (12-1 pg 54)  
KELLY, C. J.  
Metal show preview (10-15 pg 83)  
KING, LUDLOW  
Automotive reliability (9-1 pg 73)

**L**

LLOYD, NORMAN M.  
Plastics in the automotive industries, Part II... Epoxies (7-15 pg 65)  
Plastics in the automotive industries Part III... Fluorocarbons (9-15 pg 73)  
Plastics in the automotive industries, Part IV... Polyethylene (11-15 pg 69)  
Power hand tools at Chrysler plant (12-1 pg 43)

**M**

MADLAND, GLEN R.  
Transistorized ignition systems (Motorola Semiconductor Products) (8-15 pg 70)  
McINTIRE, JOHN E.  
Gray iron uses (7-15 pg 57)  
MILITZER, ROBERT  
Processing ball-type parts (Micromatic Hone) (11-15 pg 64)  
MULLER, GEORGE J.  
Die stamped circuits (Dytronics) (11-1 pg 58)



## P

PEEBLES, J. D.  
Gas turbine developments  
at GM (8-15 pg 73)

## R

RISK, T. H.  
Plastic uses and require-  
ments (Ford) (abstract)  
(7-1 pg 35)  
ROSE, KENNETH  
Construction Equipment  
Trends (7-15 pg 79)  
Engine production at John  
Deere (Perfect Circle)  
(11-15 pg 66)  
Heat treating gears at Oliver  
(7-1 pg 43)  
Numerically controlled ma-  
chine tools (International  
Harvester) (Deere) (7-15  
pg 72)  
Tooling at IHC (7-15 pg 78)  
Tractor assembly at Motec  
Industries (7-1 pg 46)

## S

SCOTT, DAVID  
European Round-up (7-15  
pg 50) (8-15 pg 52) (9-15  
pg 54) (10-15 pg 48) (11-15  
pg 50)  
Lucas electronic ignition  
system (8-1 pg 50)  
Rotary cylinder engine  
(William R. Selwood) (8-1  
pg 50)  
SPAETH, WILLIAM F.  
OMC aluminum industrial  
engines (11-15 pg 60)  
SPAR, CHARLES  
Vickers hydraulic confer-  
ence (12-15 pg 120)

## W

WEINERT, CHARLES A.  
Industrial engine develop-  
ments (8-15 pg 59)  
Machine tool builders' re-  
port (8-1 pg 48)  
Machine tool builders re-  
port (11-1 pg 49)  
Making production pay (9-1  
pg 76)  
News of the Machinery In-  
dustries (7-1 pg 57) (7-15  
pg 81) (8-1 pg 55) (8-15  
pg 83) (9-15 pg 87) (10-1  
pg 61) (10-15 pg 89)  
(11-1 pg 61) (11-15 pg 81)  
(12-1 pg 59) (12-15 pg 55)  
Steelmaking process (Crucible Steel) (7-1 pg 52)  
Volkswagen design and pro-  
duction (8-15 pg 65)

WRIGHT, JAMES O.  
Product planning (Ford)  
(abstract) (12-15 pg 92)

## COMPANIES

## A

ACROMARK CO.  
Marking machines, tube,  
Model ETMA (8-15 pg 90)  
ADVANCED PRODUCTS CO.  
Thermocouple, small Moni-  
temp Mark III (9-1 pg 127)  
AIR REDUCTION SALES CO.  
Electrode, aluminum, weld-  
ing, Airco 43 (10-1 pg 64)  
Electrode, steel welding,  
Airco Easyacr 328 (8-15  
pg 87)  
Flame cutter, numerically  
controlled (8-1 pg 60)  
Rod, welding, Airco 1010  
(7-15 pg 95)  
Torch, valveless, welding  
(7-15 pg 85)  
ALLIS-CHALMERS MFG CO.  
Allis-Chalmers engine  
plant, Part I (9-15 pg 65)  
Allis-Chalmers engine  
plant, Part II (11-1 pg 51)  
AMERICAN CLEANING  
EQUIPMENT CORP.  
Vacuum, compressed air,  
industrial cleaning (9-15  
pg 99)  
AMERICAN MOTORS CORP.  
American Motors shift con-  
trol (10-1 pg 43)  
New Rambler Classic 6 and  
Ambassador V-8 (10-15  
pg 81)  
Passenger cars for 1962  
(10-15 pg 55)  
Rambler American cars for  
1962 (10-1 pg 56)  
AMERICAN SEALANTS CO.  
Lock, liquid, nut, bolt, Loc-  
tite (7-15 pg 93)  
AMERICAN-STANDARD CON-  
TROLS DIV.  
Valve, air-type, compact  
car (11-1 pg 77)  
AMPOWER PRODUCTS  
Power pack, welding, Model  
60-T (9-15 pg 99)  
ANOCUT ENGINEERING CO.  
Machining unit, electrolytic  
(11-1 pg 67)  
ARMCO STEEL CORP.  
Alloy, stainless steel (11-15  
pg 85)  
ARNO ADHESIVE TAPES INC.  
Adhesive compound, general  
purpose, No. 2 (8-1 pg 65)  
AUSTIN MOTOR CO., LTD.  
(England)  
Austin Healey Sprite II (7-15  
pg 86)

AUTOMATIC TRANSPORTA-  
TION CO.

Truck, industrial, narrow  
aisle, Transveyor (Auto-  
matic Transportation) (8-  
15 pg 90)

AUTOMATION DEVICES, INC.  
Switch, control, Jet-Tron  
(8-15 pg 99)

## B

B & T MACHINERY CO.  
Press, trim, hydraulic (11-1  
pg 69)  
BARDEN CORP.  
Bearings, miniature (8-15  
pg 101)  
BEAVER PIPE TOOLS, INC.  
Cutting machine, abrasive  
(12-15 pg 64)  
BENDIX CORP.  
Carburetor, air-valve,  
Stromberg CD (9-1 pg 156)  
Filter, low-pressure (9-1  
pg 125)  
Maintenance panel (7-15 pg  
85)  
BINKS MFG. CO.  
Filter, inline paint, Model  
41-1415 (12-15 pg 77)  
Spray booth, paint, Dispo  
(10-15 pg 84)  
BREN/WELD CORP.  
Welder, stud, Mini-Stud  
(12-15 pg 59)  
BRITISH MOTOR CORP.  
(England)  
High performance Minicar  
(11-1 pg 57)  
BROWN & SHARPE MFG. CO.  
Grinder, surface, die (8-15  
pg 99)  
Supply units, coolant, ma-  
chine tools (9-15 pg 99)  
BRUNNING, CHARLES CO.,  
INC.  
Camera, microfilm (9-1 pg  
150)  
Whiteprinter, dry diazo,  
Starlet 80 (11-1 pg 69)  
BRYANT CHUCKING  
GRINDER CO.  
Grinder, internal, double-  
end, automatic (9-15 pg  
91)  
BUDWIG MFG. CO.  
Straps, cable, self-locking  
(7-15 pg 93)  
BUICK MOTOR DIV., GM  
CORP.  
Buick regular for 1962 (10-1  
pg 42)  
Buick special for 1962 (10-1  
pg 41)  
Buick V-6 engine (10-1 pg  
39)

## C

CADILLAC MOTOR CAR DIV.  
GM CORP.  
Cadillac for 1962 (10-1 pg  
48)  
CARTER MFG. CO.  
Bearings, sleeve, Never-  
lube (10-1 pg 72)  
CAZENEUVE LATHES, INC.  
Copying unit, hydraulic (11-  
15 pg 91)  
CHEVROLET MOTOR DIV.,  
GM CORP.  
Chevrolet regular cars for  
1962 (10-1 pg 44)  
Chevrolet trucks for 1962  
(9-15 pg 81)  
Sintered-iron brake lining  
(8-15 pg 69)  
CHICAGO AIR FILTER CO.  
Collector, dust, Model A-6  
(9-15 pg 91)  
CHROMALLOY CORP.  
Carbide cutting-grade,  
Ferro-Tic-J (10-1 pg 64)  
CHRYSLER CORP.  
Aluminum cylinder block  
production at Chrysler  
(12-1 pg 51)  
Chrysler Corp. cars for  
1962 (9-15 pg 68)  
Mechanical features of 1962  
Chrysler Corp. cars (9-  
15 pg 61)  
Passenger cars for 1962  
(10-15 pg 55)  
Power hand tools at Chrys-  
ler plant (12-1 pg 43)  
Purchasing at Chrysler  
Corp. (11-1 pg 42)  
CHRYSLER-PLYMOUTH DIV.,  
CHRYSLER CORP.  
Chrysler Imperial assembly  
(7-1 pg 44)  
CINCINNATI MILLING MA-  
CHINE CO.  
Cutting fluid, Five-Star  
Cimcool (8-1 pg 65)  
Laminates, electrical, Cim-  
clad (7-15 pg 93)  
Milling machine, horizontal,  
vertical, angular, H-V (8-  
15 pg 99)  
CINCINNATI SHAPER CO.  
Shear, hydraulic, adjust-  
able, Series 8N10 (7-1 pg  
60)  
CINCINNATI SUB ZERO  
PRODUCTS  
Chilling units, metallurgical  
(10-15 pg 87)  
CITY ENGINEERING CO., INC.  
Winch-hoist, electric, My-  
Te Super (8-1 pg 60)  
CLARK CONTROLLER CO.  
Brake, magnetic, mill mo-  
tors (10-1 pg 72)

CLARK EQUIPMENT CO.  
Truck transmission, positive lubrication (12-15 pg 77)

CLIPPARD INSTRUMENT LABORATORY, INC.  
Value, double check (7-15 pg 95)

COMPUTER CONTROL CO., INC

Computer, general-purpose, flexibility (12-1 pg 62)

COOPER WEYMOUTH, INC.  
Reels, stock (8-15 pg 87)  
Reels, stock, heavy-duty (10-1 pg 64)

CRANE CO.  
Valve, dual-pressure, braking system (8-15 pg 101)

CROSS CO.  
Trunnion, tractor cylinders (11-1 pg 67)

CRUCIBLE STEEL CO. OF AMERICA  
Steelmaking process (7-1 pg 52)

## D

DANA CORP.  
Transmission case, heavy-duty, Series 6000 (7-1 pg 66)

DEERE & CO.  
Engine production at John Deere (Perfect Circle) (11-15 pg 66)  
Numerically controlled machine tools (7-15 pg 72)

DERN TOOL CO.  
Holder, lathe-tool (7-15 pg 122)

DICE, J. W. CO.  
Micrometer, electronic (12-15 pg 64)

DIXON-SINTALLOY, INC.  
Graphite metals (7-15 pg 93)

DOW CHEMICAL CO.  
Polystyrene, high impact, auto industry Styron 444 (12-15 pg 77)

DOW CORNING CORP.  
Rubber, silicone, Silastic 241U (12-1 pg 66)

DUAL DRIVE, INC.  
Differential, dual drive (7-15 pg 95)

DUMORE CO.  
Control, drill, tap (8-15 pg 99)

DYTRONICS, INC.  
Die stamped circuits (11-1 pg 58)

## E

EATON MFG. CO.  
Axle, truck, 3-speed (7-15 pg 95)

Reducer, speed (12-1 pg 63)  
EATON MFG. CO., MARION DIV.

Forging at Eaton (12-1 pg 48)

ELASTIC STOP NUT CORP. OF AMERICA  
Fastener, clip-on, Type LHA4972 (9-1 pg 123)

ELECTRIC STORAGE BATTERY CO.  
Batteries, storage, nickel-iron (12-1 pg 66)

ELECTRONIC ASSOCIATES, INC.  
Monitor, multi-machine (11-1 pg 67)

ELWELL-PARKER ELECTRIC CO.  
Truck, industrial, heavy-duty, electric-powered (9-15 pg 91)

EVANS-THOMPSON MFG CO  
Sprayer, thermo-plastic (10-1 pg 64)

EX-CELL-O CORP.  
Boring machine, engine blocks (8-15 pg 87)

## F

FEDERAL PRODUCTS CORP.  
Indicator, dial, Micro-Sure MSE 1/2K (12-15 pg 77)

FIDELITY CHEMICAL PRODUCTS CORP.  
Descaling solution, Stainless No. 205 (9-1 pg 158)

FISHER BODY DIV., GM CORP.  
Bolster press line at Fisher Body plant (7-1 pg 50)

FLEXROCK CO.  
Masonry protection, Long-life (9-15 pg 101)

FOOTE-BURT CO.  
Drilling, tapping machine, multiple spindle, large components (7-15 pg 121)

FORD DIV., FORD MOTOR CO.  
Ford trucks for 1962 (9-15 pg 80)

Galaxie for 1962 (10-1 pg 53)

FORD MOTOR CO.  
Ford Fairlane for 1962 (10-15 pg 80)

Ford foundries (11-1 pg 46)  
Ford tractor plant (8-1 pg 46)

Passenger cars for 1962 (10-15 pg 55)

Plastic uses and requirements (abstract) (7-1 pg 35)

Product planning (abstract), (12-15 pg 92)

Thunderbird for 1962 (10-15 pg 79)

Titanium-carbide tool materials (9-15 pg 121)

Resins, metal-filled, Epocast H-1759 (9-1 pg 123)

## G

GMC TRUCK & COACH DIV., GM CORP.

GMC trucks for 1962 (10-1 pg 58)

GENERAL BROACH & ENGINEERING CO.  
Broaching machine, steel gear blanks (11-1 pg 69)

GENERAL ELECTRIC CO.  
Silicone rubber, self-bonding (7-1 pg 66)

GENERAL MOTORS CORP.  
Aluminum cylinder block production at GM (7-15 pg 77)

GM methods at work (12-1 pg 37)

Gas turbine developments at GM (8-15 pg 73)

Passenger cars for 1962 (10-15 pg 55)

GLOBE INDUSTRIES, INC.  
Blower, axial, miniature (8-15 pg 101)

GOODYEAR TIRE & RUBBER CO.  
Brake, disc, industrial (10-1 pg 72)

Rim, truck, disc and cast wheels (7-1 pg 66)

GRESEN MFG. CO.  
Gage, filter line (9-1 pg 156)

GRINDING & POLISHING MACHINERY CORP.  
Grinder, abrasive belt (8-15 pg 99)

GUMM, FREDERICK CHEMICAL CO., INC.  
Compound, tumbling, abrasive, Clepo (11-1 pg 77)

## H

HAUSE MACHINES, INC.  
Feed units, power, quill-type (8-15 pg 90)

HAYDON INSTRUMENT CO.  
Counters, sub-miniature, Models 1005, 1006 (9-1 pg 125)

HAYES, C. I., INC.  
Dryer, air, heat-treating, Model DBB (12-1 pg 63)

HOBART BROS. INC.  
Welder, semi-automatic (10-15 pg 84)

HOLLEY CARBURETOR CO.  
Carburetor, Chrysler Corp. cars (10-1 pg 72)

Carburetor, light-weight, Model 1909 (11-15 pg 85)

Governor system, auxiliary (9-1 pg 125)

HONAN ASSOCIATED, INC.  
Filter media, air (12-1 pg 66)

HUNT VALVE CO.  
Valves, 2-way, hydraulic control (7-1 pg 59)

HYDRAULIC RESEARCH & MFG. CO.  
Actuator, servo, rockets (9-15 pg 101)

Cryogenic valves, missiles (9-15 pg 101)

GUMM, FREDERICK CHEMICAL CO., INC.

Compound, tumbling, abrasive, Clepo (11-1 pg 77)

## I

HAUSE MACHINES, INC.  
Feed units, power, quill-type (8-15 pg 90)

HAYDON INSTRUMENT CO.  
Counters, sub-miniature, Models 1005, 1006 (9-1 pg 125)

HAYES, C. I., INC.  
Dryer, air, heat-treating, Model DBB (12-1 pg 63)

HOBART BROS. INC.  
Welder, semi-automatic (10-15 pg 84)

HOLLEY CARBURETOR CO.  
Carburetor, Chrysler Corp. cars (10-1 pg 72)

Carburetor, light-weight, Model 1909 (11-15 pg 85)

Governor system, auxiliary (9-1 pg 125)

HONAN ASSOCIATED, INC.  
Filter media, air (12-1 pg 66)

HUNT VALVE CO.  
Valves, 2-way, hydraulic control (7-1 pg 59)

HYDRAULIC RESEARCH & MFG. CO.  
Actuator, servo, rockets (9-15 pg 101)

Cryogenic valves, missiles (9-15 pg 101)

## I

ILLINOIS TOOL WORKS  
Screws, mounting (7-15 pg 95)

INDEX MACHINE CO.  
Mill, ram, turret, Model 645 (7-15 pg 87)

INDUCTION HEATING CORP.  
Assembling flywheel ring-gears (8-15 pg 80)

Hardening technique, large gears (10-1 pg 65)

# **AUTOMOTIVE INDUSTRIES - INDEX**

July 1 To December 15, 1961

Switch, transfer (9-1 pg 123)  
**INDUSTRIAL ELECTRICAL WORKS**  
 Reels, ground support, stainless-steel hose (12-1 pg 66)  
**INDUSTRIONICS CONTROLS, INC.**  
 Safeguard, die, slide transfer machines (12-15 pg 59)  
**INSTRU-LEC CORP.**  
 Differentials, precision (9-1 pg 127)  
**INTERNATIONAL BUSINESS MACHINES CORP.**  
 Control, numerical, machines, Autoprompt (7-1 pg 59)  
**INTERNATIONAL HARVESTER CO.**  
 Numerically controlled machine tools (7-15 pg 72)  
 Tooling at IHC (7-15 pg 78)

## **J**

**JERGENS TOOL SPECIALTY CO.**  
 Plungers, spring (10-1 pg 72)  
**JOHNS-MANVILLE**  
 Friction material, organic J-M Style 160 (9-1 pg 123)  
 Tape, strapping, vinyl-backed, Dutch Brand No. 400 (9-1 pg 127)

## **K**

**KAYDON ENGINEERING CORP.**  
 Turning machine, vertical, electronic control, Model 291 (8-1 pg 60)  
**KELSEY-HAYES CO.**  
 Wheel, spoke, cast-steel (12-1 pg 66)  
**KENNAMETAL, INC.**  
 Boring bars (8-15 pg 87)  
**KING, H. A. CO., INC.**  
 Damper, vibration, torsional, crankshaft (11-1 pg 77)  
**KINGSBURY MACHINE TOOL CORP.**  
 Center column machine, governor hubs (12-15 pg 64)  
**KOLENE CORP.**  
 Bath process, molten-salt, Tuffride (10-15 pg 84)

## **L**

**LANDIS MACHINE CO.**  
 Head, thread rolling (9-15 pg 91)

**LaSALLE MACHINE TOOL, INC.**  
 Transfer machine, axle housings (11-15 pg 91)  
**LELAND-GIFFORD CO.**  
 Drill, tape controlled (7-15 pg 87)  
**LINDE CO.**  
 Flame-cutting machine, CM-75 Cadet (10-1 pg 64)  
**LINCOLN-MERCURY DIV., FORD MOTOR CO.**  
 Mercury Meteor for 1962 (11-15 pg 59)  
 Mercury Comet for 1962 (10-1 pg 55)  
 Mercury Monterey for 1962 (10-1 pg 54)  
**LINDBERG ENGINEERING CO.**  
 Control unit, power, transistorized (11-15 pg 93)  
 Furnace, heat treat, automated (12-15 pg 59)  
 Generator, gas, industrial (9-15 pg 97)  
 Kiln, car-bottom, electrical (7-15 pg 122)

**LINDE CO.**  
 Coating, surface, Plasmarc (10-15 pg 87)  
**LINK-AGE CORP.**  
 Ball joints, pivots, linkage (9-1 pg 127)  
**LINK-BELT CO.**  
 Bearings, sleeve, Flex-Bloc (7-1 pg 60)  
**LOCKHEED AIRCRAFT CORP.**  
 Positioners, hydraulic, aircraft, precision locating (9-15 pg 99)  
**LUCAS, JOSEPH, LTD. (England)**  
 Lucas electronic ignition system (8-1 pg 50)

## **M**

**M-H STANDARD CORP.**  
 Rails, wheeled, Versarail (8-15 pg 87)  
**MACHINE PRODUCTS CORP.**  
 Table, rotary, angle (11-1 pg 67)  
**MACK TRUCKS, INC.**  
 Engine Diesel, PowerRam Thermodyne (11-1 pg 77)  
**MAGNAFLUX CORP.**  
 Tester, electric-weld tubing, Magnatest SD-100 (12-15 pg 64)  
**MAY-FRAN MFG. CO.**  
 Conveyor line, portable and semi-portable (11-1 pg 67)  
**MELLOWES CO.**  
 Mechanical plating process at Mellows (8-1 pg 45)

**METACHEM RESINS CORP.**  
 Impregnating compound, Mereco 43-21 (8-15 pg 101)  
**MICROMATIC HONE CORP.**  
 Processing ball-type parts (11-15 pg 64)  
**MICROMETRICAL MFG. CO.**  
 Measuring unit, peak count, roughness (8-15 pg 90)  
**MINNESOTA MINING & MFG. CO.**  
 Adhesive, heat resistant, spray, EC-1828 (9-1 pg 150)  
 Adhesives, modified epoxy (12-1 pg 62)  
 Adhesives, printed circuit (8-15 pg 101)  
 Filter mask, featherweight (9-15 pg 101)  
 Mechanical plating process at Mellows (8-1 pg 45)  
**MOLYKOTE CORP.**  
 Lubricant, dry-film, cutting tools (12-15 pg 77)  
**MOTEC INDUSTRIES, INC.**  
 Tractor assembly at Motec Industries (7-1 pg 46)  
**MOTOROLA, INC.**  
 Alternator, electronic (11-15 pg 85)  
**MOTOROLA SEMICONDUCTOR PRODUCTS, INC.**  
 Transistorized ignition systems (8-15 pg 70)

## **N**

**NATIONAL BROACH & MACHINE CO.**  
 Bars, lead, precision (7-15 pg 87)  
**NATIONAL ELECTRIC WELDING MACHINES CO.**  
 Welder, butt, automatic, galvanized steel strip (11-15 pg 93)  
**NATIONAL LOCK CO.**  
 Fastener, square nose, Type S (12-1 pg 66)  
**NATIONAL-STANDARD CO.**  
 Wire cloth, high-temperature applications (11-15 pg 85)  
**NEBEL MACHINE TOOL CORP.**  
 Lathe, bed-gap, heavy-duty (12-1 pg 63)  
**NEW YORK AIR BRAKE CO.**  
 Pumps, hydraulic, heavy-duty (8-15 pg 101)  
**NOPCO CHEMICAL CO.**  
 Inhibitor, corrosion, oil soluble, Nopcohex D (9-1 pg 127)  
**NORTON CO.**  
 Wheel, grinding, weld, Cup-N-Saucer (7-15 pg 124)

**NU-ERA CORP.**  
 Bender, metal tube, tape-controlled (12-1 pg 63)

## **O**

**OILDEX CORP.**  
 Ventilator, crankcase (11-1 pg 77)  
**OLDSMOBILE DIV., GM CORP.**  
 Control equipment at Oldsmobile plant (7-1 pg 48)  
 Oldsmobile F-85 for 1962 (10-1 pg 52)  
 Oldsmobile 88 and 98 for 1962 (10-1 pg 50)  
**OUTBOARD MARINE CORP.**  
 OMC aluminum industrial engines (11-15 pg 60)

## **P**

**PARKER-HARTFORD CORP.**  
 Optical attachment, visual grinding (8-15 pg 90)  
 Polisher, die (8-1 pg 60)  
**PENN ENGINEERING & MFG. CORP.**  
 Nuts, self-clinching (9-15 pg 101)  
**PERFECT CIRCLE CORP.**  
 Engine production at John Deere (11-15 pg 66)  
**PEUGEOT (France)**  
 Car vibrations and noise (8-15 pg 76)  
**PLASTOMER CORP.**  
 Foam, anti-flame (7-15 pg 95)  
**PONTIAC MOTOR DIV., GM CORP.**  
 Pontiac for 1962 (10-1 pg 46)  
 Pontiac reliability program (11-1 pg 37)  
 Pontiac Tempest drive line (abstract) (7-1 pg 39)  
 Pontiac Tempest for 1962 (10-1 pg 47)  
**PRENCO PRODUCTS, INC.**  
 Impregnation machine batch - type, sealing aluminum transmission cases (9-15 pg 99)  
**PRODUCTION MACHINERY CORP.**  
 Separator, strip steel (11-1 pg 69)  
**PROTECTION CONTROLS, INC.**  
 Control, timer, versatile, electronic (11-1 pg 69)  
**PURULATOR PRODUCTS, INC.**  
 Filters, aircraft (7-15 pg 95)



## R

REES, MACKWORTH G., INC.  
Control, pushbutton, triple-function (11-15 pg 85)

RENAULT (FRANCE)  
Renault Dauphine for 1962 (10-1 pg 55)

REPUBLIC AVIATION CORP.  
Vickers hydraulic conference (12-15 pg 120)

ROBINS AVIATION, INC.  
Seat, plastic valve, aviation (8-1 pg 65)

ROBBINS & MYERS, INC.  
Motor-pump units (7-15 pg 93)

ROCKWELL - STANDARD CORP.  
Axles, trailer (7-15 pg 93)

ROTOR TOOL CO.  
Wrench, air-impact, torque control, J-42T (10-1 pg 65)

RADIO CORP. OF AMERICA  
Inspection, assembly system, piston, piston pin (8-1 pg 59)

Tester, hardness, small parts (8-1 pg 60)

RAPIDS-STANDARD CO., INC.  
Treads, wheel, caster, polyurethane (8-15 pg 101)

RAYTHEON CO.  
Power supply, welding, Model 225B (11-15 pg 93)

## S

SELWOOD, WILLIAM R., LTD.  
(England)  
Rotary cylinder engine (8-1 pg 50)

SAGINAW STEERING GEAR DIV., GM CORP.  
Screw assemblies (7-15 pg 87)

SARASOTA PRODUCTS, INC.  
Valve, brake (8-1 pg 65)

SENTRY CO.  
Furnace, electric, atmosphere (10-15 pg 84)

## SHEFFER CORP.

Pump, hydraulic, hand-operated (9-1 pg 125)

SIMONDS ABRASIVE CO.  
Grinding wheel, ruby (12-1 pg 62)

SNYDER CORP.  
Index machines, rotary, automotive door hinges (7-1 pg 60)

STARRETT, L.S. CO.  
Indicators, dial, precision (11-1 pg 77)

STEWART-WARNER CORP.  
Balancer, single plane, electronic (7-15 pg 85)

STOELTING, C.H. CO.  
Vise, precision machine (7-15 pg 95)

STOKES, F.J. CORP.  
Furnaces, vacuum, metal-lurgy (10-15 pg 87)

STOKVIS MULTITON CORP.  
Truck, industrial, Crate Mate (7-15 pg 85)

STOW MFG. CO.  
Link, steering, flexible (11-15 pg 91)

STUDEBAKER-PACKARD CORP.  
Passenger cars for 1962 (10-15 pg 55)

Studebaker cars for 1962 (10-1 pg 57)

SWEETS, MARTIN CO.  
Traverse mechanism, polyurethane foam production (11-15 pg 91)

SYNCRON CORP.  
Coil, ignition, Electronic Coil (9-1 pg 150)

## T

THERMEL, INC.  
Thermostat, engine (8-1 pg 65)

THOMPSON ELECTRIC WELDER CO.  
Control, resistance-welder, automatic, Calimatic (7-1 pg 59)

## THOR POWER TOOL CO.

Screwdriver, air-powered (11-15 pg 93)

TOYO KOGYO (Japan)  
Die casting at Toyo Kogyo plant (12-15 pg 48)

TURNER BROS., INC.  
Tester, leak, transfer-type (9-15 pg 97)

## U

U.S. INDUSTRIES, INC.  
Robot, industrial, electronic (10-1 pg 64)

U.S. RUBBER CO.  
Tire, passenger car, polybutadiene rubber (7-15 pg 95)

UNIVERSAL CYCLOPS STEEL CORP.  
Alloys, stainless steel, corrosion-resistant (10-1 pg 65)

Finish, stainless steel, Unibrite (7-1 pg 65)

## V

VAN KEUREN CO.  
Gage, 12-inch height (9-15 pg 97)

VANADIUM CORP. OF AMERICA  
Alloy, master, titanium (11-1 pg 77)

VICKERS, INC.  
Motors, hydraulic (10-1 pg 65)

Power packages, hydraulic (9-1 pg 123)

Pumps, motors, angle-type (7-15 pg 124)

Pumps, vane-type (12-15 pg 59)

Vickers hydraulic conference (12-15 pg 120)

VOLKSWAGEN (Germany)  
Volkswagen design and production (8-15 pg 65)

Volkswagen for 1962 (10-1 pg 49)

## W

WALES STRIPPIT, INC.  
Gaging system, Micro-Set (10-15 pg 84)

WARNER LEWIS CO.  
Strainer, cleanable, Flo-gard (9-1 pg 127)

WATERMAN HYDRAULICS CORP.  
Valve, divider-combiner, Model 1467 (9-15 pg 101)

WERNER, H.E., INC.  
Urethane packaging, Hew-foam (9-1 pg 125)

WESTERN UNIT CORP.  
Suspension system, truck, Stabilaire (7-1 pg 66)

WESTINGHOUSE ELECTRIC CORP.  
Detector, flaw, magnetic (7-1 pg 60)

Welder, ac, industrial (7-15 pg 93)

WHEEL TRUEING TOOL CO.  
Additive, lapping compound (10-15 pg 87)

WIEGAND, EDWIN L. CO.  
Heater, engine, electric, Chromalox (11-15 pg 85)

WILLIAMS POWER BRAKE EQUIPMENT CO.  
Brake devices, air, motor freight (9-1 pg 125)

Safety device, trucks, buses, (8-1 pg 65)

WILSON, THOMAS C., INC.  
Grinders, small - wheel, Series 921 (9-15 pg 97)

WOODWORTH, N.A. CO.  
Coupling unit, air, chucking equipment (12-1 pg 62)

## XYZ

YODER CO.  
Transformer, vapor-cooled, resistance - welding (7-1 pg 60)



